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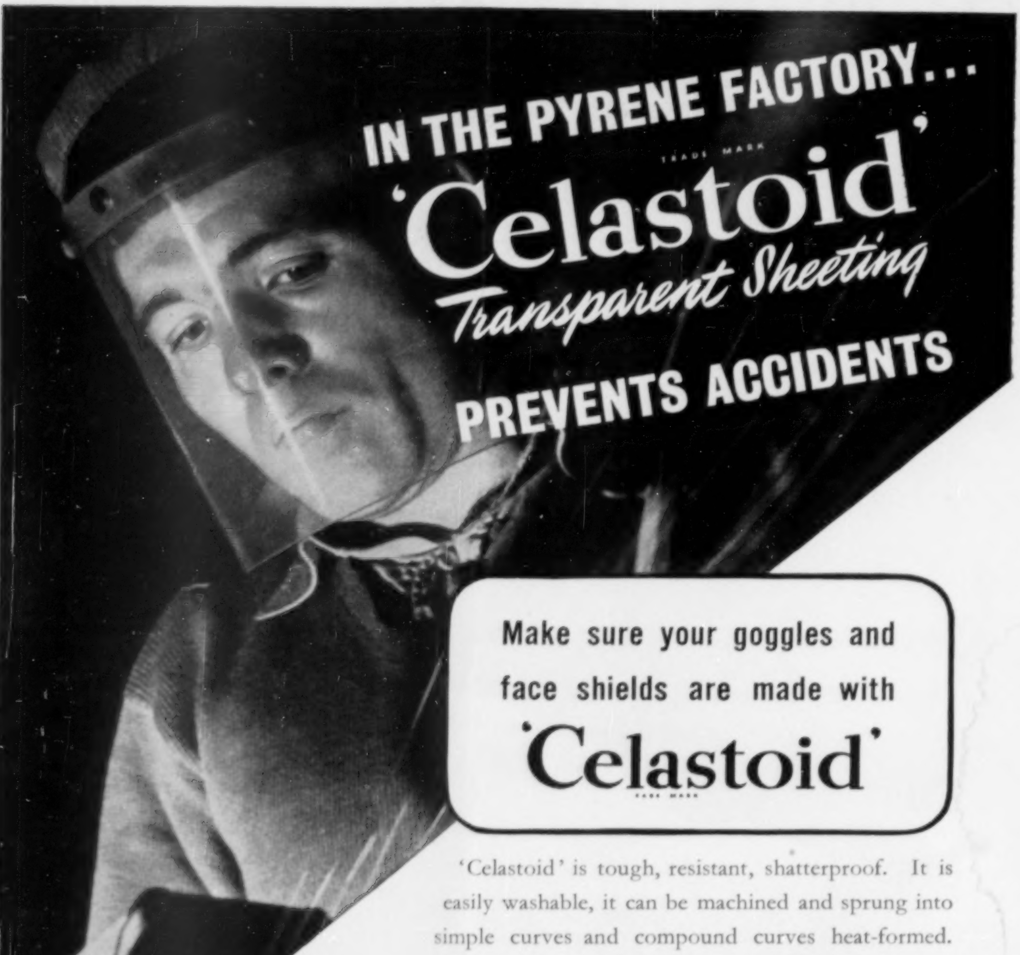

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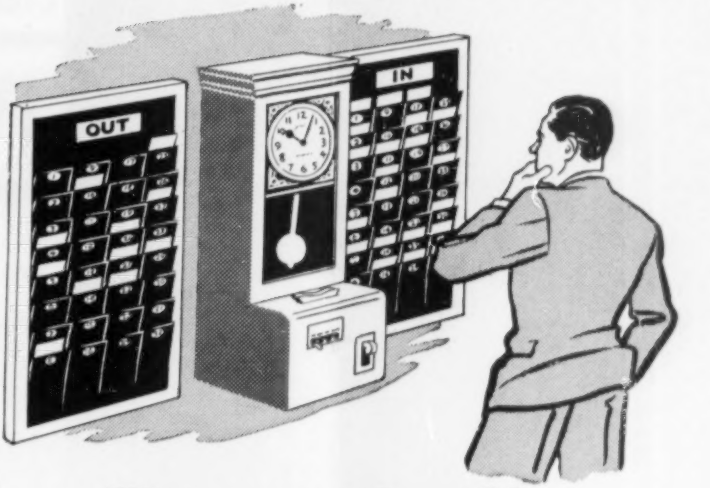

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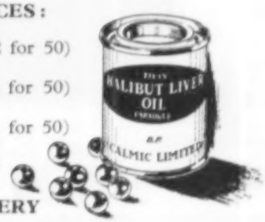

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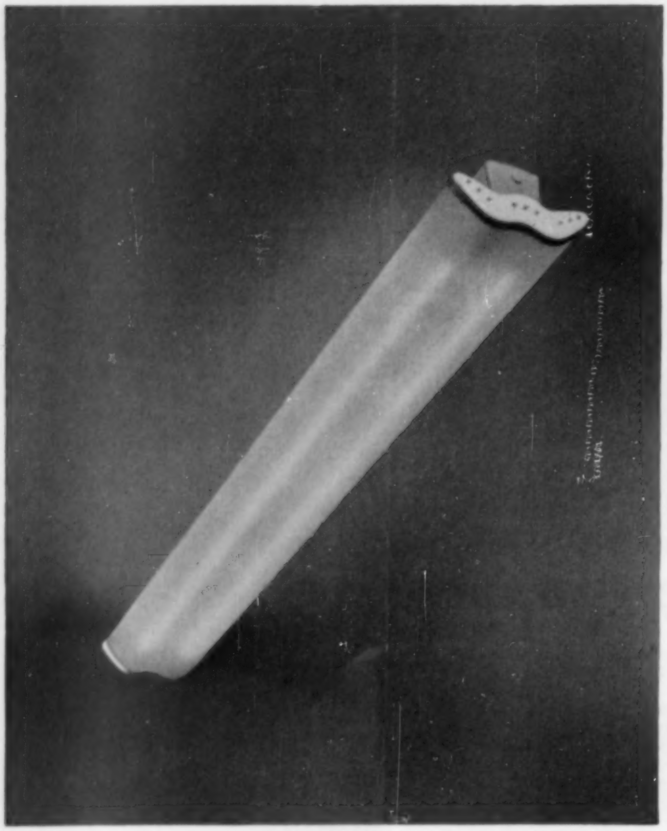

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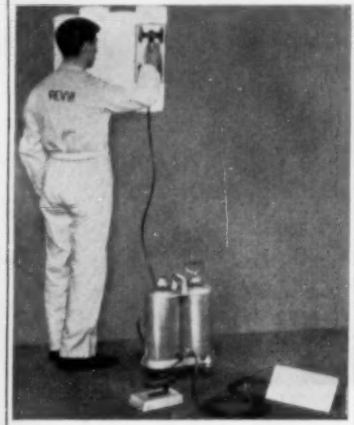

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Where Profit-Sharing Really Pays Off — *Robert McKinnon* — 153
Story of how a paper mill runs a very generous profit sharing scheme in conjunction with co-partnership

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How To Select Young Office Workers—deals with how to choose young staff without training or experience

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Describes a training course for salesmen aimed at teaching them the art of self-diagnosis as a step to handling others

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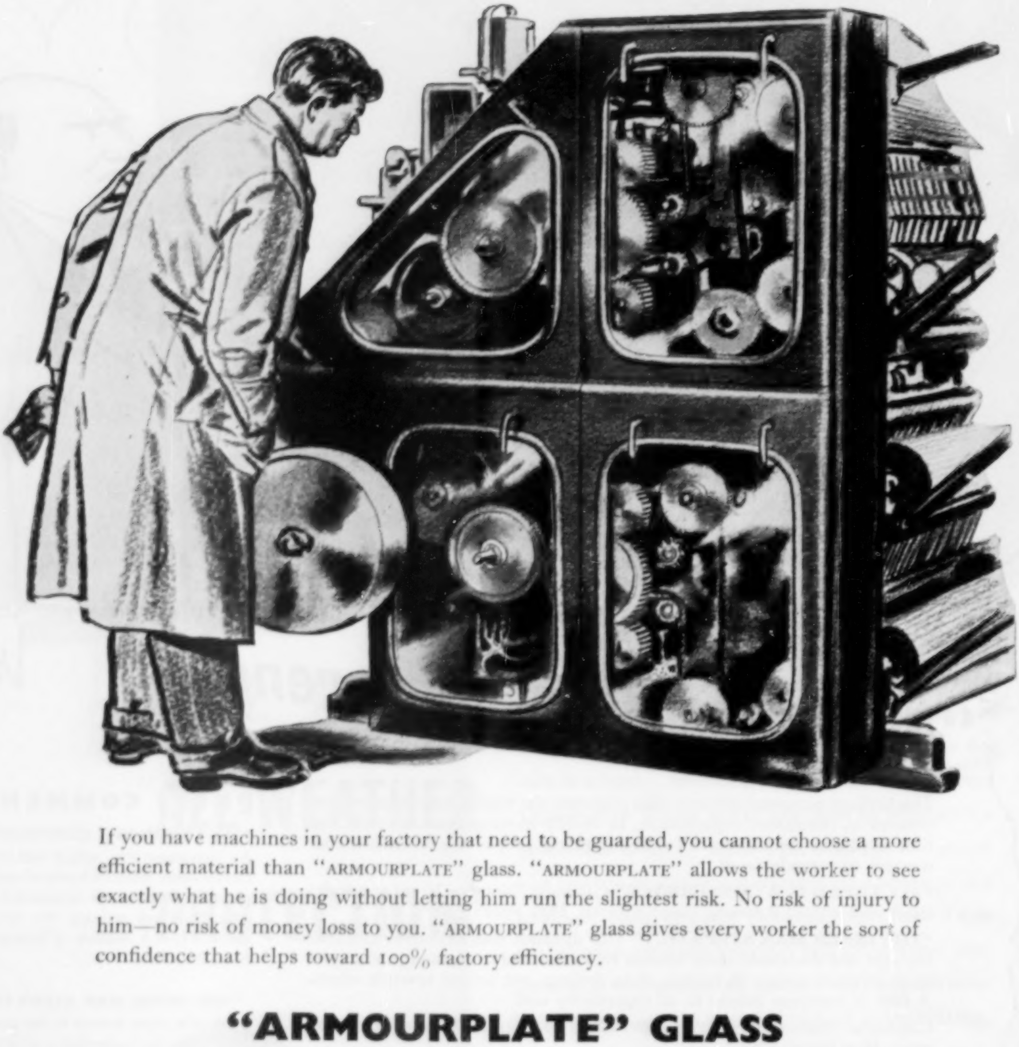

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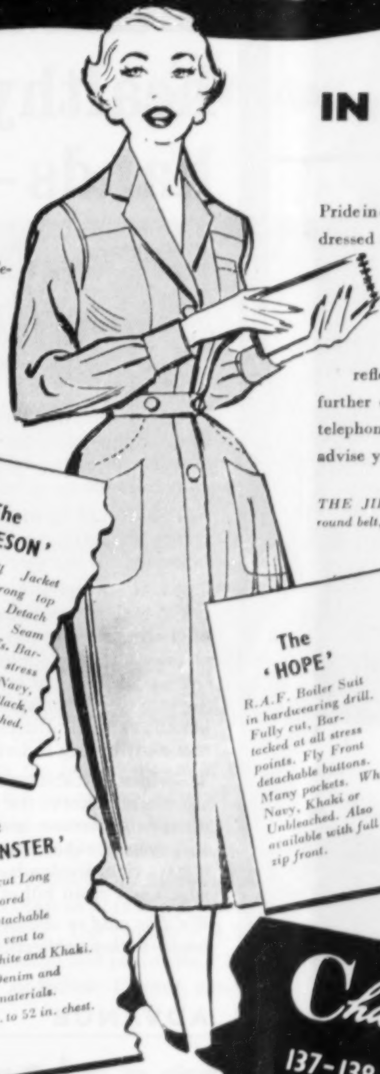

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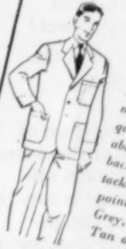

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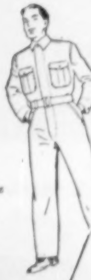

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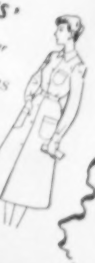

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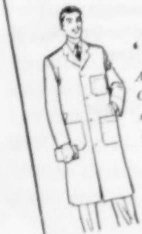

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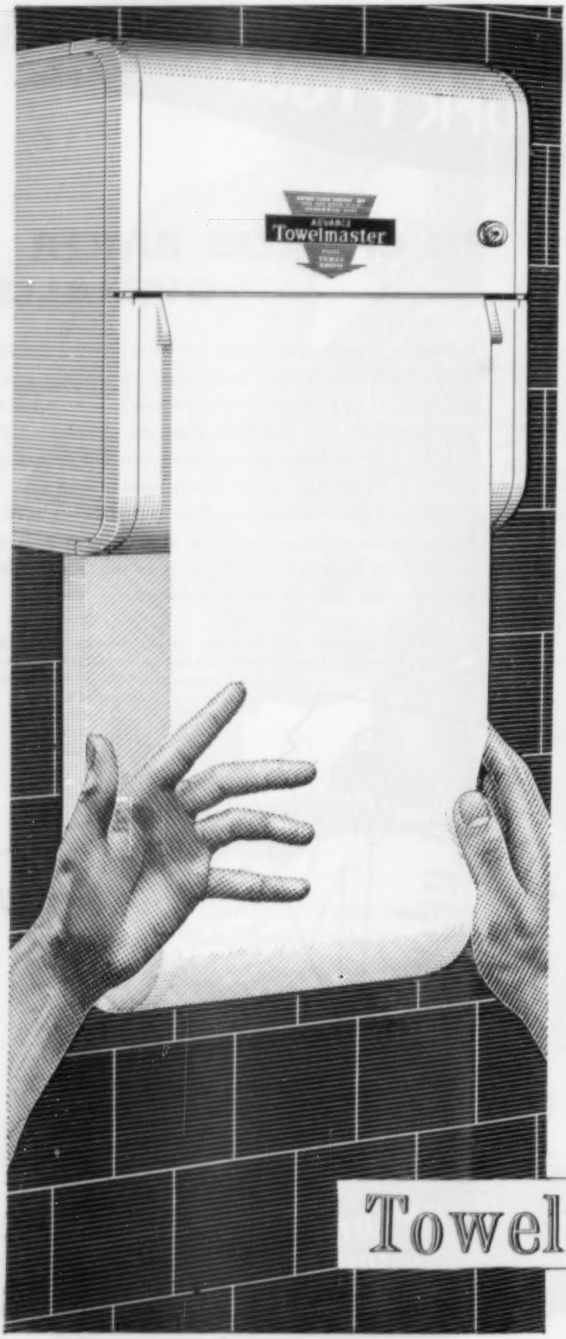

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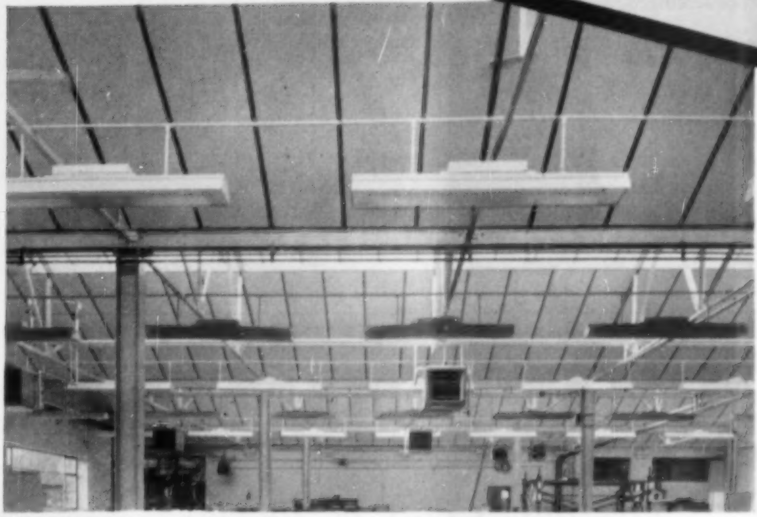

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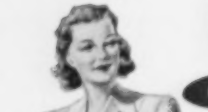

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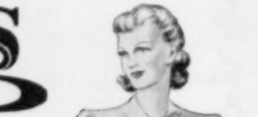

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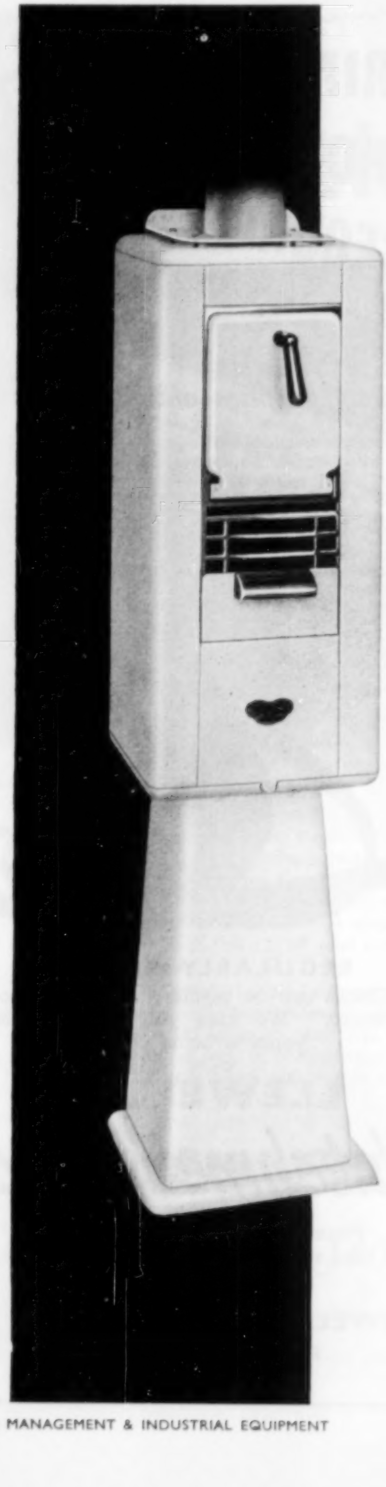

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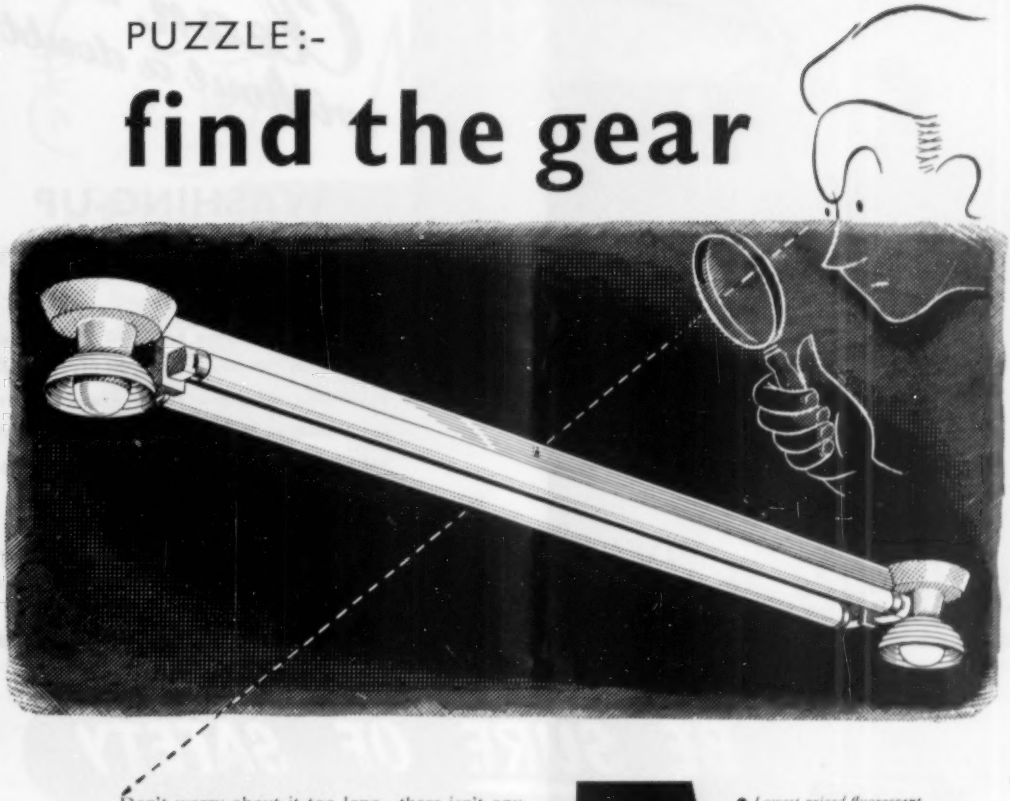

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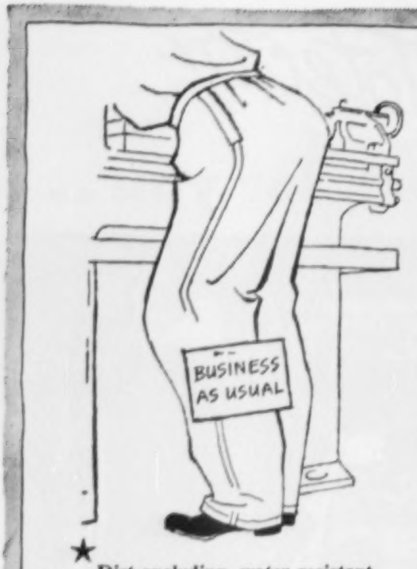

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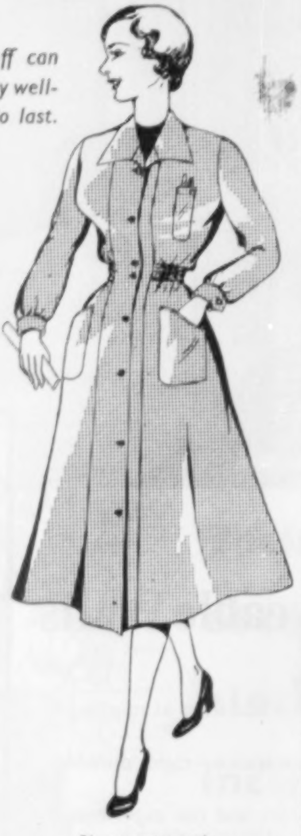

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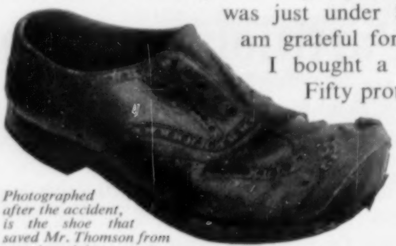

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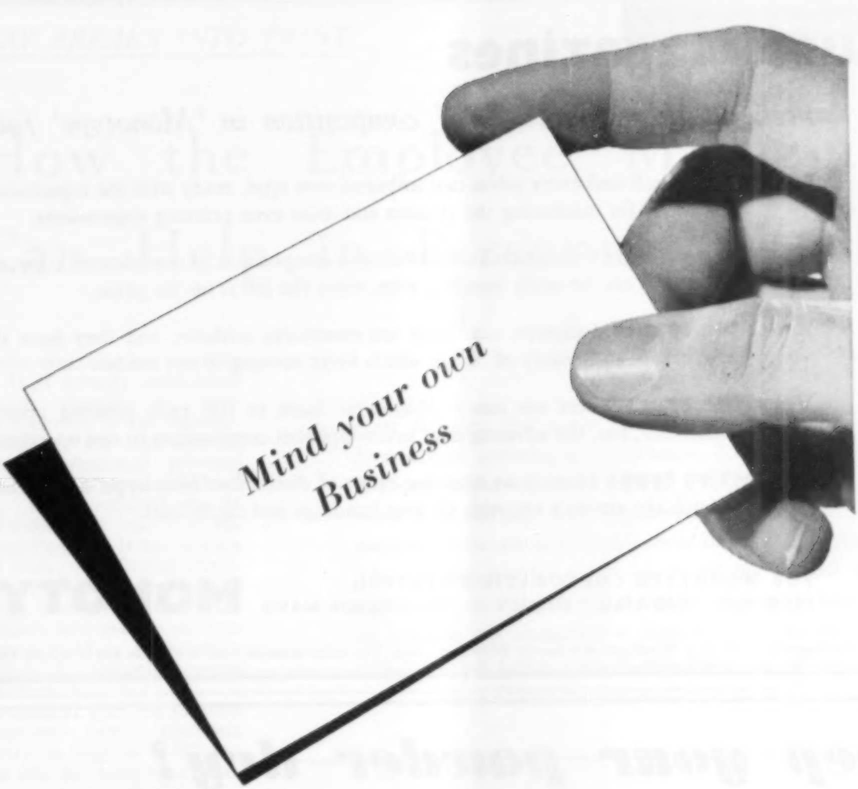

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How the Employee Magazine Can Help in Personnel Work

By ROBERT DOUGLAS

Over the past few years the employee magazine has been steadily growing in importance. Today the number in Britain alone is put as high as 1,200, and more and more are making their appearance. Here, then, is analysis of the reasons for this trend and of the question: "Is a house journal really worth all the trouble and expense?" Success, claims the writer, depends primarily on keeping the magazine a family affair, keeping it free from pep talks, and on appointing an editor who really knows his firm and believes in it.

THE works magazine has come to stay. It is already considered important enough to have attracted the attention of the management institutes, the advertising agencies, the professional printing consultants and the Central Office of Information. It is referred to as Service to Productivity No. 7 in the March issue of *Target*. It has its own professional body, the British Association of Industrial Editors (formed in 1948 on the remains of the House Organ Institute), and every year sees two conferences held in its honour: one by the B.A.I.E., the other by the Industrial Welfare Society.

Various estimates put the number of works magazines now in existence in this country as high as 1,200 but nowhere can one get hold of a complete list of more than half of these.

Of all forms of printed matter the works magazine, house journal, employee magazine (or whatever name may be used) is the most variegated, the most rapidly developing and possibly the least understood. What are they for, why do firms spend money on them—and more and more firms are doing so—and are they really worth all the trouble and expense?

In the first place, if one is ever going to have a clear answer to these questions, it is vitally necessary to understand what one means by the term "works magazine." It might in fact be better to refer to them simply as employee magazines in order to appreciate their most important function from the personnel management point of view, with the addition of a rider to the effect that it should be understood that they may have an incidental importance for the firm's public relations policy. It is not really enough to distinguish, as the B.A.I.E. seem to prefer, "internal" from "external" works magazines.

That distinction springs from an attempt to draw a demarcation line between those very few magazines, such as Unilever's *Progress*, and Guest, Keen and Nettlefold's *Far and Wide*, which are published by a big company purely to enhance its prestige with the outside world—this type of publication is often referred to as a "house journal"—and the far larger number which are printed to serve some purpose inside the business. It is the purpose for which the internal magazine is produced which should really determine how it is classified. This may be

1. To assist in selling the company's product. The publication might be aimed at the customer (e.g. James Upton's *New Mechanick Exercises*, which sells print, and *Vauxhall Motorist*) or directed to briefing the sales staff (e.g. *Dexion News* or *Goodyear News*).
2. To assist the technical and research staff and to supply users of the product with high level technical information (e.g. *Metropolitan-Vickers Gazette*).
3. To provide a link between the members of a group of companies scattered over a wide area, perhaps overseas as well (e.g. *Marconi Companies and Their People* or *Taywood News*).
4. To act as a bond in a large and relatively impersonal firm between worker and worker or between worker and management and help replace lost personal contact. The results of this type of internal magazine, which may be in the form of higher productivity, improved communications, better morale OR ALL THREE, are what interest the personnel manager and the industrial psychologist.

The figures shown on our front cover are purely imaginary and do not apply to any of the journals shown in the montage.

There is far too much nonsense

Employee Magazine Facts and Figures

1. *Well over half existing employee magazines have been launched since 1946.*
2. *The majority are printed, usually in magazine format, the quarto page size being slightly more popular than the pocket size. The average number of pages is 20-30. Much importance is attached to pictures of people and groups of people.*
3. *The majority are given away, the price of the rest ranging from 1d. to 6d.*
4. *Income from sales or advertisements is for the most part set against production costs.*
5. *Most editors are part-time, though the number of full-time editors is increasing.*
6. *Part-time editors are recruited chiefly from the personnel, welfare or publicity departments of the firm.*
7. *Most editors are responsible for their magazine's policy, though nearly all are answerable to top management.*
8. *It is not uncommon to pay contributors though outside free-lance copy is seldom used.*
9. *Almost all magazines cover social events and "gossip" and about one in two have features of specific family interest.*
10. *Employees generally get their copies via a special works delivery, through the post or with their wage packets.*
11. *Most come out quarterly, followed by bi-monthly then monthly.*
12. *The written consent of the employee must be obtained before the cost of the journal can be deducted from the wage-packet. It is best to consult the Truck Acts on this point.*

talked about the employee magazine ; and when we use that phrase we mean strictly categories 3 and 4 described above, and from the point of view of getting results it is the fourth definition which interests the employer.

The company which publishes or intends to set about publishing an employee magazine should ask itself in the first place what its intentions are. To achieve the results set out above ? Good. To impress the general public ? As an incidental aim, all right ; as an intentional and primary aim, wrong. Immediately a manager sets out to make his works magazine more than the family affair it should be if it is to succeed, he is in danger of falling between two stools.

One thing the publisher of an employee magazine *must* bear in mind is that the employees are liable to look upon his publication as the "voice of management." Initially, then, the magazine must be kept completely free from the sort of pep-talks which are found in the sales staff's bulletins. Didactic, managing director's messages will only tend to create hostility to the magazine, which will then take a long time to break down, and meanwhile the money spent on paper, printing and salaries is virtually wasted.

It depends on the size and type of firm exactly what form the magazine will finally take, how much will be budgeted for it, how often it will appear, whether it will be sold or given away and so on. The best way to arrive at some conclusions about the most appropriate method of launching a new journal or restyling an old one is to have a look at existing ones in other companies and try to assess their relative success or failure—a difficult task even for the experienced editor.

Recently a small survey of about 60 magazines was issued by the Industrial Welfare Society. This brought together a useful body of factual material hitherto not readily available, based only on magazines produced by an employee of the company, whether he (or she) were a full-time editor (and there are a growing number of these) or a part-timer whose other job might be anything from personnel manager or works manager to public relations officer or librarian.

It must be remembered that a fair number of employee magazines (though not always the best ones) are produced by specialist agencies who are professional publishers with up-to-the-minute ideas on typography and lay-out, but labour under the serious handicap of not knowing the company set-up at first hand. The good works magazine is as much part of the firm as the shopfloor, the canteen or the pay office. Unless the editor is an employee who knows his company *and believes in it* he cannot do a good job ! At least it would be just to say that he will be less able to inspire the magazine with those touches of intimacy which will enable it to produce the desired results.

At this stage it should be made clear that another common and fatal mistake on the part of management is to confuse works magazine journalism with national, commercial journalism. Some companies try to get the best of both worlds by publishing more than one periodical, others just mix it all up in one hit-and-miss, four-colour, art paper, no-expense-spared monthly which leaves their employees cold and sets the shareholders wondering what's happening to their cash.

No names, no pack drill—but *Reader's Digest* and *Lilliput* can be bought freely by the operative and contain no reference to workaday matters and the firm. To appeal, the works magazine must have a character and a spirit of its own which the worker can recognise and appreciate.

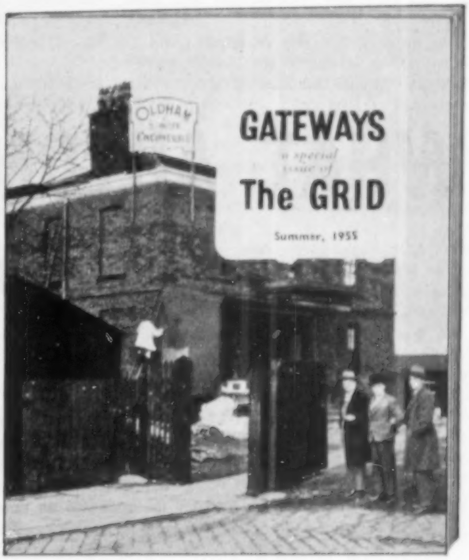
Keep It Simple

It does *not* have to be elaborate and costly. As long as it looks pleasant, is written in readable, standard English, well printed or duplicated, and cheap or free as circumstances permit, it will have a reasonable chance of success. Frequency of appearance will depend very largely on the size of the firm. *Ford Works News* is a weekly newspaper supplemented by *Ford Family*, a glossy, colourful journal aimed at mother and the children as well as father, which appears every two months and costs fourpence. The *News* is given away because it is easier than collecting tuppences and hardly any more expensive. Incidentally both of these journals have a full-time editor who belongs to the company's public relations department.

In the Unilever group of companies there are at least fifteen employee magazines. One, *Port Sunlight News*, is a monthly which costs threepence to buy and about half-a-crown to produce. The rest are quarterlies and alternate monthlies, nearly all distributed free, as is *Unilever House Magazine* itself, which is rather more of a public relations product than the rest.

The United Steel Companies also have a stable of works periodicals. Among these is *The App-Frod Record*, a well produced, pleasingly simple news-sheet between four and eight pages in extent. This comes from Appleby Frodingham and, as far as it goes, represents probably the most efficient and economical form of works newspaper. It has a cousin at Workington Iron and Steel called the *Cumberland Group Bulletin* which is also a simply produced, straightforward news-sheet, octavo size, instead of quarto or larger which is preferred for the newspaper style works magazines.

There are even simpler, one sheet bulletins and innumerable duplicated ones, from the elegant and exemplary Gestetner publication down to irregularly appearing, blotchy but often entertaining products of small firms or local branches of nationalised industries.



Shareholders as well as employees each got a copy of The Grid—house magazine of *Oldham & Son Ltd.*, Denton, Manchester. Many shareholders admitted that they had not previously been aware of the human story behind the firm's many activities.

The last reference ought to be elaborated by immediate recognition of the impressive network of regional publications put out by the various offices of the Central Electricity Authority and the Gas Boards. Some of these pocket sized, good looking journals are an object lesson for companies seeking an example to follow. Quite a lot of these are the responsibility of full-time editors, and a thorough examination of their contents and the way in which an appearance of unity and common interest has been imposed upon a fantastically varied assortment of material will impress the informed reader with the necessity of handing over this sort of journal to a specialist, but again preferably one who knows the organisation inside out.

The choice for the intending publisher of a works magazine is a very wide one, judging from these examples. It is a choice which must be made with the most scrupulous care, and the warnings given here are not idle. The dangers are very real, more so today than when the first magazines began to appear over 50 years ago.

Now it is rather the fashion to have a magazine in the company, and since the war the number in existence has swollen immensely, to the extent that works magazine publishing has become a business in itself, and the pitfall for the employer who wants to have the benefit of a magazine without too much trouble, and who farms out its publication, is that he may find his company has a nice looking journal at which no one in the company ever looks !

The answer is not hard to find. Start in a small way. Find someone in the company (personnel, welfare, information, P.R. or advertising are often drawn on for a likely man or woman) who has sufficient keenness and intelligence to make a fair job of the journal. Put the proposition to them and make it clear that they will be helped, not restricted in their task, trained in the technicalities, given a *reasonable* budget and found a co-operative printer (preferably a local man). Then set a deadline and leave them to it. Have a committee if you like, if it's that sort of a company, or just leave it to the editor. He'll soon make his needs known. And, by the way, in case any reader of this is faced with the dreadful task of "putting his paper to bed" for the first time—it's not half as difficult as the experts would have you believe.

But remember that your readers are paid wages by your publisher and don't get carried away by the idea that every editor has to crusade. You will also find that if your magazine or newspaper is good that others outside the works will read it too. Perhaps the employee's family, the customers of the firm, the public, the Press. At this stage you find that public relations is your business, and that your magazine is the key to many more things than internal relations—but that is its first and overriding task, all the rest is incidental. A good company produces a good magazine and needs one too.

Employee Magazine Do's and Don'ts

1. **Make it primarily a family affair.**
2. **Avoid any policy that would turn it into " the voice of management."**
3. **Study other house journals for ideas on lay-out and features.**
4. **Keep it intimate and readable. This matters more than colour and art paper.**
5. **Do not use the pages for " crusades."**
6. **Get tenders from several printers before placing the contract.**

WHAT AUTOMATION MEANS

1—*Factory Personnel of the Future*

By FRANK G. WOOLLARD, M.B.E., M.I.Mech.E., M.I.Prod.E., M.I.I.A., M.S.A.E.

EDITOR'S NOTE. This is the first of three articles based on the memorable address given this summer by Mr. Frank Woollard to the Margate Conference on The Automatic Factory. It is being reproduced in this journal in order that it may reach as wide an audience as possible among those whose jobs deal with people at work. The keystone of the author's beliefs is that, properly used, *the machine is the friend of man.* Automation can mean a revolutionary improvement in living standards though the day of complete or "ultimate" automation is yet far off. Here, however, we are given a detailed and fascinating picture of the type of labour force that will run the factory of the future.

IF we look upon automatic transfer machines and automation as a logical outcome of the flow production system, the computer as a natural development of the Babbage calculating machine evolved from a long series of office appliances, and the numerical control system as an extension of the Jacquard apparatus for facilitating the weaving of figured textiles in the loom, it may help the realisation that there is nothing sinister or frightening in this new system of producing goods. The word "system" is used advisedly, for these methods are a marriage of mechanism and management in which management is the dominant partner. It is the bringing together by management of methods, mechanisms and self-acting controls which has made possible the conception of the automatic factory.

Moreover, we must recognise that automatic operation is not new. Many of our process plants have been subject to automatic operation and control, in whole or in part, for a long time—among them paper-making, printing, flour-milling,* chemical manufacture, petroleum products, food preparation. Also individual automatic metal-working machines have been in existence for more than fifty years. What is new is the extension of automatic operation to the hard, heavy, awkward and unyielding shapes of those components used in industries which are based on engineering practice.

Is it true that "ultimate automation" will be achieved in the next decade? If we mean by this term a factory entirely without machine operators, the answer is probably in the negative. Automation will only be adopted when there is economic justification for such a course. The economic reasons may not, it is true, be dictated by monetary considerations only; there may be a shortage of labour; the tasks may be too heavy for the operators or they may be dangerous to health or inimical to life or limb.

There are, in all factories, a considerable number of tasks which can be more economically handled by manual labour. Take, for instance, the semi-automatic car assembly lines at the *Austin Motor Company's* factory—the most advanced practice in the world. No doubt it would be possible precisely to locate the engine in the chassis (instead of within "half-a-hole"), to insert the bolts and to tighten the nuts automatically; but not, maybe, economically. It is, therefore, probable that, while we shall see automation playing an increasing part in our metal-working factories, it is unlikely that it will take the entire stage as it has done in certain other industries.

This brings us to the question—why do we adopt automation: what do we gain? The answer is:—

(*a*) a very considerable saving of direct labour

(*b*) a greater economy in floor space

(*c*) a much lower inventory of work in progress

(*d*) a much greater control of processing

(*e*) cheaper operating heads on the machines

(*f*) automatic inspection of the work-piece

(*g*) much fuller utilisation of machine capacity.

It is the last of these wherein the greatest economy lies. For the past century we have been striving to improve the effectiveness of cutting tools. And in the last 25 years the advances in this direction have been phenomenal for, based on high-speed steel in the 1930's, the modern carbide tools are showing improvements of the order of 450 to 875 per cent. Yet until the advent of the automatic transfer machine little had been done, mechanically, to expedite the loading and unloading of work-pieces into machines.

Now, with automatic transfer and

---

*An automatic flour mill was in operation in Philadelphia, U.S.A., in 1784.

automation, this part of the operation is as near 100 per cent efficient as it is ever likely to be. One authority states that operations performed at 65 per cent of the rated capacity of the machines have, after the application of automation, been raised to 80 per cent, but this is probably a low estimate, since there are many instances of increases of as much as 100 to 650 per cent in labour saving, from which it would appear that the machine capacity must have been very greatly increased, as well as the inter-operational handling.

With automation we are entering a new phase of development which will profoundly affect our lives. Therefore it is interesting to speculate on the effect it may have on different members of the community.

We should ask: "Is machinery beneficial or inimical to mankind?" Linked with this is the query: "Is the factory system opposed to the interests of mankind?"

First, it is no exaggeration to say that, but for machine power, slavery might still exist. It must be recognised that the abolition of slavery (in 1833 in the British Colonies and 1863 in the United States) was largely due to the invention of the rotative steam engine in 1783. Its rapid development in the succeeding years challenged the economic as well as the moral justification for the use of slave labour. To point the moral, actual or near-slave labour is not unknown in the under-developed regions of to-day.

Secondly, it was found necessary in 1819 to pass an Act of Parliament to prevent children from being worked for more than twelve hours *per diem*—that is, 72 hours per week, since there was no Saturday half-day.

Thirdly, one hundred years ago 60 hours constituted a normal working week. Fifty years ago, as an apprentice, I worked a 54-hour week with sometimes 18 hours overtime. To-day we have arrived at a 44-hour week: thus in 100 years we have had a reduction of normal working hours amounting to over 25 per cent. Further, where two-shift working is established, hours are usually reduced to 40 per week. Moreover, during the past century real wages have increased by some 250 per cent. From this it would appear that machinery and the factory system have been good friends to man.

Outside the factory the influence of ultimate automation will be felt by the community as a whole, by the consumers as part of the community, and by the distributors of the manufactured goods. Inside the factory everyone will feel the repercussions of ultimate automation.

In the automatic factory, managers will of necessity have to become more co-operative and more imaginative in their co-operation. There will be a need for closer team-work both up and down the executive and across the functional lines of the organisation. The gift of prophecy will be a near-essential, for it will be important that all possible difficulties shall be foreseen. Management will have to be more communicative. Instructions will need to be more fully considered, less tentative, more explicit and positive, than hitherto. Transmission of communications will need to be quicker. Radio will be pressed into service. Television is already being used here as well as in the U.S.A. as a means of assisting works communications.

No "Big Brother"

The foregoing may conjure up visions of "big brother" shouting his instructions from head office. If so, I have conveyed an entirely wrong impression. The organisation will need to be segmented according to its several functions, with executive leaders for every segment—it is between these that the swift communication and the instant co-operation will be required. Such requirements will demand a real *esprit de corps*—not merely lip-service—in which everyone respects the other and each will cheerfully take more than his share of work when necessary. It will be essential to convince supervisors and workpeople that the company's aims are worthy, that the methods it adopts are necessary and that the machinery will function as intended.

The number of supervisors and junior executives required in the automatic factory will be greater than in those of to-day. They will be in charge more of machines than of men, of whom there will be few. They will be less like foremen and more like shift engineers in ships or in an electric power station. They will be alert to every change in the tempo of the machinery, and they will need to cultivate that indefinable sixth sense that will detect, immediately, anything liable to impede the natural flow of production.

What of the men on the shop floor? There will be stock men and there may be machine loaders and unloaders—though it is most likely that these latter functions will be taken over by inter-operation devices and the loader will disappear; there will be a few machine operators, rather like caretakers; there will be more tool-setters, maintenance men and technicians allocated to each group of machines. The machines will signal for attention when a change of tools is needed and the tools will be waiting, ready sharpened and pre-set, in the tool cribs alongside the toolometer which gives the warning.

There will, of course, be viewers until the inspection function, in turn, becomes automatic. Then the viewer will become an electronic technician.

It will be observed that most of the men must be first-rate mechanics and, if they have not already acquired it, they will be approaching supervisory status. They will be keen and intelligent men; they will have little to do, much of the time, but will ever be on the alert and

(*Continued on page* 174.)

In the Automatic Factory

1. **There will be a need for closer team-work among management as a whole.**
2. **Communication will have to be better and quicker.**
3. **More supervisors and junior executives will be required than to-day.**
4. **Most of the workers will be first-rate mechanics with little to do most of the time but quick to act when action is needed.**
5. **Incentive payments will be based on the team's ability to keep the machines running.**
6. **The method of calculating overheads as a percentage of labour costs will become outdated.**

1 An attractive feature of Eastpark is the main stairway, dominated at the first landing by a double stained-glass window. The firm's own carpets are fitted throughout the house.

Personnel Management Picture Story

2 Eastpark stands in 1¼ acres of grounds in one of Glasgow's pleasantest suburbs, and is within easy access of the tenants' place of work.

A 'NEW LOOK' IN STAFF ACCOMMODATION

By PAUL BENNETT

3 A seat by the fire or in the window bay is provided for the tenants in the spacious, attractively decorated lounge.

An imposing grey-stone mansion standing in its own grounds in one of Glasgow's most attractive suburbs is now the home of 15 bachelor girl employees of *James Templeton and Co. Ltd.*, the carpet manufacturers. Fashionably furnished and tastefully decorated, the house provides a comfortable residence at low rent, in the company of colleagues with similar interests, for unmarried women workers who might otherwise be forced to live either alone or in lodgings.

It was in 1947 that the company decided to provide a home for the bachelor girls on their staff. Certain directors personally set aside funds for the purpose of erecting a blocks of flats, within easy access of their place of work, in which these girls could live.

But this original scheme soon encountered insuperable obstacles. First, the planning authorities refused to grant a building licence, and finally the idea of building a block of flats was abandoned because of the excessive costs involved.

Since a new building had proved out of the question, the firm turned their attention in another direction, and began a search for a suitable house which could be converted into flatlets. They were successful in June, 1954, when they acquired Eastpark, a three-storey, 15-roomed house in Buchanan Drive, Rutherglen, immediately adjoining the firm's recreation grounds.

The house was taken over by The Templeton Housing Trust, a non-profit-making trust which was set up and financed by the funds originally set aside by some of the directors. Then began the long and thorough job of converting the premises, all the work of which was carried out by Templeton's own maintenance staff.

Eastpark, although retaining its handsome exterior appearance, has been reconstructed extensively inside. The accommodation now comprises a dining room, lounge, conservatory, three kitchens, three bathrooms, and 12 bed-sitting rooms, three of which are for two people.

All the bed-sitters are fitted with a combination dresser and electric cooker unit of original design. The cookers were modified by the firm's maintenance staff so as to give the maximum heat insulation, and they have plate-warming compartments on each side of the oven, with a drip tray underneath. The dresser also houses the switch fuses and electricity meter for each room.

Every room is carpeted with the firm's own products in a wide variety of designs, and the rooms on the ground floor are centrally heated.

The large dining room on the ground floor has been furnished for communal meals if the need should arise—for example a Christmas party—although the tenants are equipped to serve meals in the privacy of their own room.

The lounge, too, is exquisitely furnished, and has a bow window overlooking the front lawn. The ubiquitous television set is, of course, provided. There are three bedrooms on the ground floor, together with a kitchen and a side conservatory.

On the first floor are five bedrooms, a small bathroom, and a kitchen—formed out of an old dressing room—which is equipped with stainless steel sink, gas cooker and refrigerator.

The original accommodation on the second floor has been drastically altered, a former billiard-room having been turned into a large double bedroom and a kitchen, while a bathroom replaces what was once a boxroom. There are three other bedrooms on this floor.

Also standing in the 1¼ acres of grounds is a cottage and large garage. The cottage, too, has been extensively altered to contain a living room, kitchenette, bathroom and two bedrooms. It is occupied by a married couple. The garage is used as a coal store, each tenant having an individual bunker.

At the rear of the house there is a wash-house, containing an electric washing machine and two sinks, which leads on to a drying green.

The rents paid by tenants at Eastpark vary between 14s. and 21s. a week, according to the accommodation provided. By any standard it is an exceedingly small price to pay for such a delightful home. Many other firms could well copy the *Templeton* example with no little advantage to themselves and their workpeople.

4 Contemporary furniture graces the dining room at Eastpark. Tenants can eat in the privacy of their own rooms if they wish, but the communal dining room is available.

5 The high quality of the furniture and fittings is shown in this picture of one of the bed-sitters. The soft-furnishings, too, have been carefully selected to combine tastefully with the wallpaper.

6 The kitchens are designed to be a delight to any woman. This one is fitted with a refrigerator, two stainless steel sinks, and a cooker with eye-level grill. There is ample cupboard space, and the whole effect is one of cleanliness allied to maximum efficiency.

Accident Reduction Requires A Joint Effort

By JOHN BOYER

MANAGEMENT ACTION IS NOT ENOUGH

THE fact that a certain number of industrial accidents are prevented cannot be denied. But just how this highly desirable result is achieved becomes a matter for considerable speculation when it is borne in mind that they *cannot* be prevented by management and they *must not* be prevented by workers. I will explain this later.

Management acting alone may attempt to prevent accidents by one of three methods. First, a set of safety rules can be given to each employee together with a threat of disciplinary action if they are not observed. Second, supervisors can give workers spoken orders. Third, managements can purchase only machinery that is properly guarded; they can devise processes which operate safely and they can plan the layout of factories so that workers are safe in their workplaces.

By adopting the third method, a partial success may confidently be expected and a proportion of the potential accidents will be prevented. But methods one and two are quite useless. Accidents cannot be prevented by management decrees—be they written or spoken. The written word: "Do not touch", "Do not smoke", do not do this, do not do that, will be observed for just as long as it suits the worker to observe it—like notices on private houses in busy streets which vainly say: "Do not park". The spoken word will be observed while the speaker is still present, but will be ignored as soon as his back is turned.

Far too often it is claimed that safety is a management responsibility. Such a claim should never be made, for management alone is quite incapable of taking care of the safety of workers.

During 1954, over 800,000 claims for industrial injury benefit were paid out of National Insurance at a cost of over £11 million. Of this vast army of claimants only a minute number were from the management side of industry. As it is the workers who suffer the bulk of industrial accidents they should, on this account, be allowed to do something to prevent them. But this they must not do. Workers are permitted to *avoid* accidents—in fact, all industrial safety propaganda urges them to do so—but they must not *prevent* them, for prevention necessitates executive action and executive action is the zealously guarded prerogative of management.

Many factories are thus faced with a *mésalliance* in which one of the partners is impotent while the other suffers an enforced chastity imposed by the master. From such a union no safety can be born. But let us not lose heart. When management decides that the sterility of its factory shall be overcome by the introduction of good industrial relations, then the fertility of the management-worker wedlock need know no bounds.

Workers are urged to *avoid* accidents but are not allowed to *prevent* them, claims the writer. Prevention means executive action and this, he says, "is the zealously guarded prerogative of management". In this controversial feature, he advocates the setting-up of safety committees in which management and workers have equal responsibility as the only really effective method of bringing down the accident rate.

Unfortunately a great many managements have not yet made this decision, a point which is emphasised in the recently published 1954 Report of the Ministry of Labour. "Very much more needs to be done at all levels towards the improvement of human relations in industry. During the year, it was possible to see signs of progress, but the progress was meagre in relation to the ground to be covered", says the report.

It is not pretended that a climate of good human relations in industry in which a progressive safety policy can thrive is easy to achieve, but it must be achieved if the number of industrial accidents is to be reduced. The scope of this article does not permit a description of the methods and techniques which should be employed to establish such relations, but they will not be unknown to personnel, welfare or safety officers.

Having accepted that the healthy child, safety, can only be born of a happy union between management and workers, it becomes important to consider the infant's future development.

At an early stage the co-operation between the management and the workers should be sealed by the election of a works safety committee. So far, out of the 230,000 factory premises under the Factories Act, only about 4,000 of them have safety committees. There is, therefore, great space for expansion in this field and it may well be that the ideal constitution of a works safety committee has not yet been found. But what experience there is available suggests that a fifty-fifty balance between the two sides is the best.

There is one school which takes the view that as all matters affecting safety will call for executive action, the committee should be preponderantly management with, perhaps, one or two representatives of the workers. Such an arrangement, of course, does not permit of an equal responsibility for safety being taken by both sides and is therefore unlikely to be as successful as an equally balanced committee. **An overweight of management representatives on any committee will make the workers feel that their contribution towards accident prevention is not valued very highly and their co-operation will, as a result, be only half-hearted.**

Committees usually function best when they have a lot to do. A new committee should be made to feel that they are going to be kept very busy and there is no better way of getting busy than by organising a works Safety Week as the first function of a newly elected safety committee.

A Safety Week, properly planned, can, and should, call for some contribution from every department in the works. If, when the first plan for the Safety Week is studied, it is found that one or more sections of the works or offices have been left out, then additional items should be put into the plan so that everyone can take part.

Competitions for the cleanest and tidiest department will stimulate an enthusiasm for good housekeeping, which is the first step in any works towards a reduction in the accident rate. This type of competition also has the advantage of bringing practically every employee into the accident prevention picture.

Another useful competition is one in which a prize is given to the department which has no accidents at all, however minor, during the works Safety Week. But a word of warning should be given that the whole point of the Safety Week is defeated if any department tries to "suppress" any minor accident for the sake of winning the prize. Sepsis, for instance, has many a time resulted from failure to report to the first aid department for treatment of a cut finger.

5 Paths To Safety

1. **Give workers the chance to test *their* ideas.**
2. **Make your safety committee feel they are going to be kept busy.**
3. **Get every department of the works to take part in safety campaigns.**
4. **Good housekeeping is the first step to reducing the accident rate.**
5. **Stress that safety competitions are useless if minor accidents are concealed.**

The office staff, the canteen staff and all those not directly employed in the production process will be interested in a safety slogan or poster competition and in making suggestions for the suggestion scheme.

A great deal of thought and energy can be put into the staging of a works safety exhibition. The exhibition also serves to bring interest from a large number of departments. The drawing office will be needed for marking exhibits and for sign-writing. Undoubtedly the carpenter's shop will be asked to build and erect stands. The electricians will light them. Notices advertising the exhibition can be run off in the general office, and stores department can supply a good many examples of protective clothing and equipment. All the employees thus involved will be in addition to those who work in the production departments from which most of the items on show will be collected.

When true co-operation between the management and workers to prevent accidents has been firmly established in the works, the partnership can be further cemented by a planned interest in what the worker does when working hours are over. In this respect Britain might well follow the example recently set by the United States.

During 1954, no less than 14,000 workers were killed while at work in American factories. But the number of industrial workers killed during the year while they were not at work reached the enormous total of 30,000. Such is the drain on manpower caused by these off-the-job fatalities that American safety officers and safety committees are now taking an active interest in the homes, the cars, the sports and hobbies of the men and women employed in their factories. As this external safety work is promoted by the works safety committee and financed by the the firm it is yet another joint effort to prevent accidents and, as such, is welcomed by the American workers.

The parents of safety have a great responsibility. Working together they can fulfil that responsibility and reduce accidents.

The greatest industrial accident, and the one most to be guarded against, would be a divorce between these two partners.

Safety Film Show

A PROGRAMME of films dealing with safety precautions in industry was presented by the G.B. Film Library to nearly 40 safety engineers from large industrial concerns in central and east London during a recent meeting of the Central Metropolitan Group of the London Industrial Committee at the Industrial Health and Safety Centre, Horseferry Road, London, S.W.1.

Introducing the films, Mr. J. W. Hissey, of the G.B. Industrial Film Division, explained that the Division had been formed for the purpose of providing industry with all types of training films, whether they were of a highly technical nature or subjects which could be used for further education.

Films shown included "Machines", demonstrating how minor carelessness in handling machinery may lead to major accidents; "Falls", spotlighting the most common causes of serious falls in industry; and "Handling", which took the form of a brief quiz on how to handle heavy loads. Also presented was "The Man Who Stops Accidents", supplied by courtesy of *Richard Thomas and Baldwins Ltd.*

Heat Hazards

UNDER Arizona statutes heat prostration is a compensable injury. Yet Howard Warner had to go to the state Supreme Court before it was determined whether his heat prostration should be compensated.

On the day in question, Warner and two other painters were painting the outside of a commercial building. The temperature was 103 degrees. There was no protection on the scaffold from the sun.

About 3 p.m. Warner complained to his co-workers of feeling nauseated. He vomited and had cramps. A doctor diagnosed the condition as acute heat prostration.

The employer defended the case by asserting that Warner's injury did not arise out of the employment.

In deciding the matter, the court referred to the statutory provision and went on to say that it is common knowledge that the rays of an afternoon summer's sun beating against the west wall of a brick building—the wall on which Warner was working—materially intensify the heat in close proximity to the wall. Claim allowed. **(Occupation Hazards.)**

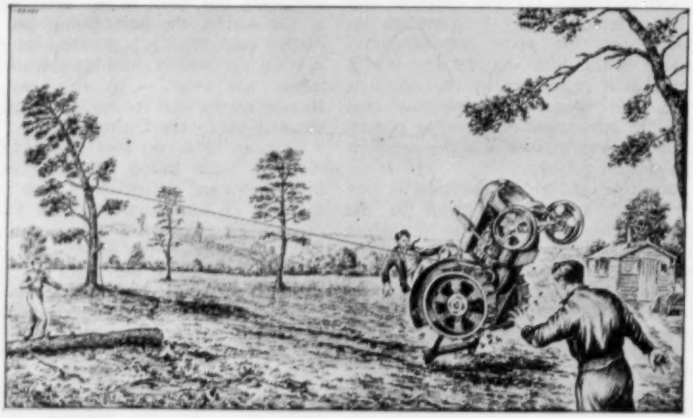
Tell-Tale Board

VACUUM OIL COMPANY have built a safety board at the entrance to Coryton Refinery as part of a drive to promote "Safety Consciousness."

The board is placed just inside the main entrance to the Refinery so that every employee passes it each day. At the top of the board is a green light which begins flashing on the first of each month, and continues to flash throughout the month unless a disabling injury occurs. When a disabling injury is reported the green light is extinguished until the end of the month, and a red light is illuminated showing the Refinery section in which the injury occurred. The red light remains illuminated to indicate the section which had the last disabling injury.

WORK SAFELY
KEEP THE GREEN LIGHT FLASHING
VACUUM OIL COMPANY
CORYTON REFINERY
EMPLOYEES
SAFETY
OFFICE ACCOUNTS
MANAGEMENT
TECHNICAL
STORES

HOW NOT TO UPROOT TREES BY TRACTOR



AN unusual accident is described and illustrated in the July issue of "Accidents—How They Happen and How to Prevent Them." *(H.M.S.O., 1s. 0d.)*

A tractor was being used to uproot some large trees, growing on land which was being cleared for a building site. The procedure consisted of placing a wire rope round the tree trunk about half way up. The rope was hitched to a light tractor provided with a winch attachment. The tractor was then driven some distance from the tree and a "spade" lowered from the rear of the tractor and pressed into the ground. This spade was in effect a two member strut which provided an anchorage for the tractor against the resistance of the tree. The rope was wound round the winch drum and the clutch was engaged.

This had the effect of pulling the top of the tree over for a certain distance but without uprooting it. As the resistance of the tree increased, the pull of the winch caused the front of the tractor to rise from the ground and at this stage the driver disengaged the clutch, causing the front wheels of the tractor to fall back on the ground and the tree to spring back to its normal position.

Clutch Jammed

This procedure was repeated several times with the object of gradually loosening the hold of the tree roots in the ground, but on the final occasion the driver could not disengage the clutch as the front of the tractor rose under the pull of the rope, with the result that the machine overturned. The driver managed to jump off the seat but was crushed beneath the tractor.

Although several trees had been uprooted by this method, it was undoubtedly a very dangerous one. As the front wheels of the tractor rose from the ground on each occasion, the resistance it offered to the pull of the tree progressively decreased the higher its centre of gravity was raised and it was only by the release of the clutch that overturning was prevented.

The tractor should have been sufficiently weighted or anchored at its front end to prevent its rising under the maximum effort which the winch was capable of exerting.

The booklet also includes descriptions of accidents which have occurred on building and constructional work, in connection with transport cranes and excavators, in foundries and on woodworking and various other kinds of machinery.

SAFETY SLOGANS FOR FACTORIES

"START a safety habit today" and "Remember that safety habits last a lifetime". This will be the main theme of RoSPA's National Industrial Safety Week being held this year from October 24 to 29. The campaign is being directed in particular to young workers and it is hoped to introduce these two slogans into every factory, large or small, throughout the United Kingdom.

Thereafter, managements will be asked to keep these and similar slogans constantly before their workers and to do all in their power to foster an enthusiasm for safe working, a result which can be achieved if managements take the initiative and make it clear to all their employees that they fully realise the importance of accident prevention.

Throughout the United Kingdom there are some fifty local industrial accident prevention groups who will be organising special functions in connection with the campaign, in which many of them will be supported by the local civic head and chamber of commerce. Individual works safety officers will carry the campaign into their own factories.

A special effort will be made during and following Campaign Week to increase the number of firms subscribing to the Society's Industrial Division. Though most of the larger industrial concerns in Britain, numbering about 5,000, are members, there are still 235,000 smaller factories and workshops which have little or no safety organisation. It is hoped that this year's campaign will bring many of these smaller concerns to appreciate the value of membership of this Society.

Cheap Flame-proofing

A CHEAP and effective method of flame-proofing clothing was dramatically spotlighted recently when Cal Niday, a racing-car driver, crashed and his car caught fire while taking part in a 500-mile race at Indianapolis. Dr. C. B. Bohner, director of the Speedway's medical staff, said that because Niday had treated his overalls with a borax/boric acid solution he escaped burns on 90 per cent of his body.

This narrow escape brings into the news a simple method of flame-proofing clothing which can be used with equal facility for industrial workers who are likely to be exposed to fire hazards. The solution comprises 10 oz. of borax and 8 oz. of boric acid dissolved in each gallon of hot water. The clothing, after each washing, is immersed in the solution for a few minutes and then allowed to dry. It is estimated that one gallon of solution would flame-proof two or three pairs of overalls.

A Smaller Size

A FEMALE press operator lost the top of a finger when it was crushed in the machine. The press was operated by means of a foot switch and was fitted with a guard.

When the women's employers were prosecuted under Section 14 of the 1937 Factories Act, it was said on their behalf that a tool-setter had adjusted the guard so that it would not allow his fingers to penetrate into the danger zone, but that he had not taken into account the fact that the finger of the woman operator was smaller than his. The firm was fined. **(RoSPA Bulletin.)**

Management At Work

PEACE TALKS

PROBLEMS of industrial relations which have come into great prominence following the recent strikes in important industries are to be discussed at a special meeting of the Joint Consultative Committee of the National Joint Advisory Council later this month.

At the quarterly meeting of the Council, which represents the British Employers' Confederation, the T.U.C., and the nationalised industries, a paper before the Council explained that the strikes had focused considerable public opinion on the problems of industrial relations. The Government had promised that, as an initial step, they would discuss these current problems with the Council.

The Minister of Labour and National Service, Sir Walter Monckton, who was in the chair, emphasized that there had been no widespread deterioration in industrial relations. Over very wide areas they remained good, he said. But it was clear both from public comment and from what had been said in Parliament that much concern had been aroused by recent events.

The Government was anxious to keep an open mind and to give the fullest consideration to any views which might be advanced by the Council.

The general view of the Council was that the solution to these problems would not be found by way of general legislation. It was agreed that these problems should be discussed in greater detail at a special meeting of the Joint Consultative Committee after the bodies represented on the Council had had time to consider the matter.

That "Grape-Vine"

IN every firm there are unofficial news channels, often referred to as the "grape-vine."

Some executives see the "grape-vine" as doing no more than spreading rumour and destroying reputations. Some think it is a good thing because it carries news quickly and acts as a safety valve. Others regard it as a somewhat mixed blessing.

No executive can control the "grape-vine" but he can influence it. Since it cannot be stopped he might be well advised to learn to live with it.

Investigation has shown that some people, at every level of authority carry news farther and faster than others. If these people are kept well informed about Company events that, sooner or later, are to be publicised, the news will spread quickly and to most sections.

Those who tend to spread news quickly are executives with assistants (rather than executives who personally supervise the rank and file) and executives in the staff (service) departments who tend to be more mobile than executives tied to one department. **(The Welfare Officer.)**

Salaries "Down Under"

AMONG the many bodies which took a special interest in, and sought further information on the article analysing "Executive Salaries" in the April issue of *Business* was the Australian Commonwealth Government. Recently Commonwealth civil servants have been given a salary award applying the "two-and-a-half times formula" to the margin for skill. This means an immediate award of salary increases ranging up to £1,800 a year.

The new formula, intended to restore wage and salary margins to something like their pre-war value, after the years of inflation, was first applied last December, when metal trades workers were given an award increasing their margins for skill to 2½ times the 1937 level. And what was considered sauce for the industrial wage-earner is now apparently also considered sauce for the civil servant. What is more, the movement has not stopped there. Other groups, of a professional or semi-professional nature, such as airline pilots, journalists and teachers have received large increases designed to restore their pre-war status. And competition for key men will no doubt cause the movement to spread fairly rapidly through industrial executive posts not covered by the Australian system of arbitration.

Probably something similar will happen in Britain during the next few years. Indeed there are already some signs of it happening. One of them is the tendency to pay higher salaries to young scientists, to compete with offers from American and Canadian firms. **(Business.)**

Leadership Training

A REPORT on *Training and Education For Management in the Iron and Steel Industry* has just been published by a sub-committee of the Training Committee of the British Iron and Steel Federation.

It is a general survey of the problems affecting education and training for men likely to become departmental managers in the industry. It examines the methods of furthering their training in works and courses available outside the works, and contains certain recommendations affecting both individual companies and the Training Committee itself.

The report has been prepared in the light of available information about methods of training and education for management followed in the iron and steel industry in this country, and in industry generally both at home and abroad. It also takes into account the

ATOMS AID INDUSTRY

Atomic energy is being adapted to aid research in the oil industry. Here a top piston ring, rendered radio-active, is placed on an engine. From the degree of radioactivity in oil samples taken during the run, the amount of wear products deposited in the oil is determined. Picture from a film shown at last month's Geneva Conference on the Peaceful Uses of Atomic Energy.

discussions on the subject at a training conference attended by senior representatives from the industry in October, 1953.

The Executive Committee of the B.I.S.F. has approved its specific recommendations for action to be taken by the Federation and agreed that the report should be circulated as a general guide to companies in the industry, to be interpreted by them in the light of their particular circumstances.

Office Training Plan

AN office training scheme has been started by *The Marley Tile Company Limited* at their head office at Sevenoaks. It is specially designed for girls who join the company on leaving school at 15 or 16. The scheme is also open to girls who want to join sometime after leaving school provided they are under 18 years of age.

At the end of the course—which lasts 48 weeks—girls will commence work as juniors in one of the several departments.

Telling Them The Facts

WHY are human relations in industry and commerce to-day often so uneasy ? Recent research has confirmed that a prime cause often overlooked by both sides of industry is poor communication; from management to worker and from worker to management.

Yet if you ask the average employer whether he has any communication problem he will probably answer "No, not that I know of". In fact, however, every business with more than a couple of hundred workers bristles with communication problems, says Cecil Chisholm in an important new book, *Communications In Industry*.

Many business leaders are now convinced that it is this failure to transmit ideas successfully between one man and another which bedevils to-day the whole industrial situation. But ingenious new techniques are rapidly being devised to overcome this failure in communication.

Eleven experts who have done pioneer work in the field of communications have contributed chapters on varying aspects of this subject. Their practical ideas give an entirely fresh view of the whole range of human relations in industry.

The problems are stated, and each element in communication — written, spoken, and visual — is analysed. Practical examples are given of how each can best be used to meet to-day's problems.

Although it is the big organisations which have supplied most of the research for this book, it is in the smaller businesses that many of the problems, and their solutions, are most clearly to be found. It is the smaller firms, too, which should be able to benefit quickest and most directly by applying the suggestions contained in this book.

Communications In Industry, edited by Cecil Chisholm, is published by Business Publications at 35s.

HOUSE MAGAZINE DIGEST . . .

Other Firms' News And Views

Centre Of Learning

As apprentices of all *Unilever* companies participate in basic training courses at Port Sunlight, individual boys work and live alongside their counterparts from other regions of the country. During most of their stay, they are accommodated in homes in Port Sunlight village and part is spent in Lodge Lane House. Week-end home leave is granted on two or three occasions all accommodation and travelling expenses being borne by the respective companies.

It is the practice for parents of all apprentices to be invited to visit the Training Centre during the period of training, at which time they are informed of their sons' progress and prospects for their future advancement. **(The John Knight Magazine.)**

Election Interest

A record poll of 86 per cent. was achieved in this year's annual election of operative representatives to the Departmental Production Committees.

The Managing Director, who presided, congratulated the successful candidates and added that in his view the Ballot Committee, responsible for the organisation had earned the highest commendation, because undoubtedly their efforts had played an important part in the success of the elections. **(Thorncliffe News.)**

A Popular Scheme

Our Apprenticeship Scheme is viewed with such favour in outside quarters that applications received nowadays are in excess of the places available.

It is therefore necessary for us to conduct tests twice yearly prior to a fresh batch of young men being started on their career to ensure the best type of candidate is engaged and that "square pegs are not fitted in round holes". **(Intercom.)**

Scrubbed Air

New dust extraction equipment, designed to improve working conditions on the coke preparation plant, has now been installed at Ebbw Vale. A dust problem arises in any steelworks at such points as the transfer from one conveyor to another, processing and preparation and discharge into bunkers or wagons. . . .

By means of this equipment dust is scrubbed out of the air by turbulent water, and only clean air goes out into the atmosphere.

The dust which has been caught by the water settles down into the bottom of each hopper, which is emptied at intervals. While the fan is running the joints which used to be subject to heavy dust clouds are clear. Working conditions are thereby vastly improved. **(Ingot News.)**

Worker Capital

Eight hundred thousand shares will be offered to *Rolls-Royce* employees in September, if a new Workers' Share Scheme is approved by the shareholders and by the Capital Issues Committee of the Treasury.

The object of the scheme is to encourage more employees to have a financial interest in the company. Only £145,000 of workers' stock—less than two and a half per cent. of the issued capital of the company—is held by 2,170 employees and pensioners under the existing Workers' Share Scheme. The proposal now being put forward will enable employees to hold approximately ten per cent. of the issued capital. **(Rolls-Royce News.)**

Service, Not Patronage

During the past five years changes have been wrought in the Personnel Department, a fact which many older employees and heads of departments have not yet fully appreciated.

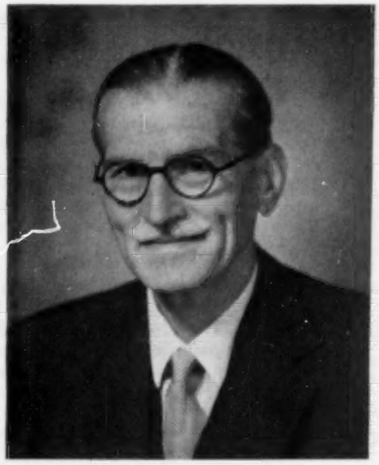
As against the old days, when Welfare, as it was termed, attended to all requirements, i.e., employment of labour, sports and social, canteen, etc., now, the Personnel Department is divided into sections, of which the Welfare Dept. is one. By this means the Welfare Officer is relieved of a multitude of tasks to enable the concentration of effort upon the more personal and intimate affairs of the employees. This affords service instead of just patronage (who wants this latter in any case ?). **(Goodwill.)**

Stomach Stapling

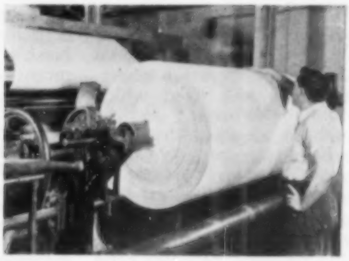
A streamlined version of the ordinary office stapling machine is supplied to army surgeons in America as a stomach suturing apparatus. It enables the surgeons to insert parallel rows of up to 23 pairs of nickel silver staples into the tissues, to close the edges of incisions. After eight to ten days the healed tissues release the staples, permitting them to pass naturally from the body. **(Mufulira Magazine.)**

Salutations!

It is upon the appearance, bearing and alertness of a company's commissionaires that a visitor forms his first impressions; as for the men, so far no one has thought about a collective noun for these uniformed ambassadors. How about "a salutation of commissionaires" ? **(Staveley News.)**



Colonel William Nash.



Mile after mile of varying grades of paper are turned out at the Nash mills. Here an operator supervises the reeling of banknote paper—for export.

Where Profit-Sharing REALLY Pays Off

By ROBERT McKINNON

Last year, the share of profits going to employees of *William Nash Ltd.* was nearly six times the sum paid in nett dividends to shareholders in the same period. This article describes how this firm's remarkable profit-sharing schemes operate—and spotlights the basic philosophy which prompts them.

WHEN Colonel William Nash, managing director of the firm of that name, told the recent Industrial Co-partnership Conference at Oxford of the profit-sharing scheme in operation at his factory (Cray Valley Paper Mills, St. Paul's Cray, Kent), he caused delegates to sit back abruptly in their seats and boggle. For, in the most matter-of-fact voice, the Colonel quoted figures to them which revealed that in 1954 the share of profits going to employees was nearly six times the sum paid in nett dividends to shareholders in the same period. As an example of the bonuses paid, a foreman received £630 and a general labourer on minimum rates, £220. Here was profit-sharing with a difference—with a vengeance, one might almost say—the generosity of the rewards sweeping back the horizons of current thinking on co-partnership.

Colonel Nash went on to qualify his figures by stressing that 1954 was an exceptionally good year for the papermaking industry and by making it clear that employees were constantly warned that any trade set-back or decline in the firm's operating efficiency would mean a reversion to much lower distributions. Nevertheless the figures stuck, the imagination was captured ; and here now is the story of how the scheme works.

As throughout its history, *William Nash Ltd.* is still a private company, the majority of its shareholders being members of the family and/or employees. It now has an issued capital of about £330,000, an annual turnover in the region of £1½ million, and employs some 330 people of whom 65 are women. In addition the company has 46 pensioners on its books.

A profit-sharing scheme was first introduced in October, 1919, and, with some modifications and additions, this scheme has operated ever since. Its basis is that dividends up to 4 per cent. are regarded as interest on the proprietors' investment, but that any distribution above 4 per cent. is regarded as profit to be shared among every employee with at least six months' service with the company. The principle of participation is that employees receive 1 per cent. on their wage or salary earnings for the past year for every 1 per cent. paid in dividends over and above 4 per cent. Thus, if a dividend of 10 per cent. were paid to the shareholders, employees would receive 6 per cent. on their earnings.

The original announcement of the scheme was accompanied by a small cash bonus to all employees as a share of the previous year's profit, but they were warned that, as the mills had fallen into considerable disrepair during the War years, a large proportion of such profits as were being made would have to be ploughed back; very small dividends would be paid and it was unlikely that the profit-sharing scheme would add markedly, if at all, to employees' incomes.

During the 1920's dividends to shareholders were very small, and in fact it was some years before employees enjoyed any participation whatever. In the 1930's, however, when the company became prosperous, employee participation began to amount to the equivalent of 2 or 3 weeks' wages as an annual bonus. As prosperity increased, dividends were not proportionately increased, but the larger amount of profits earned was ploughed back.

In 1937, as it was thought employees should have some participation in profits placed to reserve, an additional scheme was put into operation whereby a datum line was fixed which represented 20 per cent. on the capital actually employed in the business of papermaking (i.e. excluding any outside investments) in any one year. This 20 per cent. was considered to be cover for normal distributions by way of dividend, profit-sharing bonuses, pensions fund contributions, etc., and anything above this datum figure would normally be placed to reserve. In any one month in which the profits exceeded the datum figure, 25 per cent. of the excess was paid out to all employed during that month, their shares varying with the responsibility of their jobs.

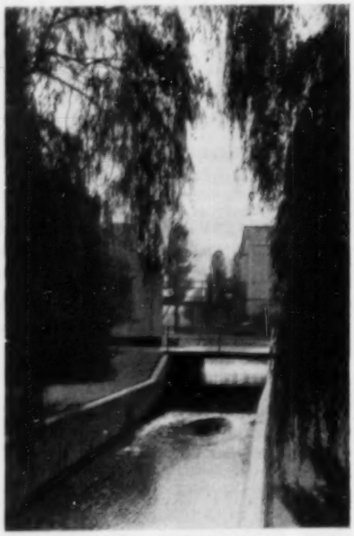
Originally the income limit for participating in the profit-sharing scheme was £500. In 1948 this limit was raised to £1,000, but senior staff receiving more than this salary receive special bonuses to make up for the loss, caused by promotion, of the usual profit-sharing bonus.

Complementing the profit-sharing side of the business is a co-partnership scheme also begun in 1919 under which employees could leave their annual bonus, or part of it, in the business as a loan to the company at 5 per cent. Moreover, should the company pay a dividend to ordinary shareholders in excess of 5 per cent., then the interest on the loan should be the same as the dividend paid on ordinary shares. A few employees have in fact left the whole of their bonuses on deposit since the inception of the scheme and have accumulated what—even in these days—amounts to a considerable sum.

In 1947, by which time a good many employees had large sums deposited, it was decided that any employee who had £200 or more deposited could convert these deposits into a special class of 5 per cent. Redeemable Participating Preference Shares. These would enjoy equality with ordinary shares in any increase of capital through bonus issues. At present the company has 125 employee/depositors and 65 holders of Employee 1st Preference Shares and 2nd Preference Shares with which they were issued as a capital bonus in common with the ordinary shareholders. The total amount invested by the workforce amounts to many thousands of pounds.

So much for the technicalities of these schemes. What of the basic philosophy that prompts them ? This is perhaps best summed up in Colonel Nash's own words taken from a recent letter he wrote to two political organisations:

> "The Nation is said to have 'willed' the nationalisation of railways and other industries. For those it would be appropriate—for the Nation is the owner of the undertakings—for Parliament to will the introduction of profit-sharing schemes. For private industry, however, I feel very strongly that compulsion or financial inducement would be disastrous. Profit-sharing and co-partnership can only induce goodwill if the proprietors of a business decide, from motives of benevolence or prudence, or both—and most human motives are mixed—to share the benefits to which they are legally entitled with others.
>
> . . . I would beg you to refrain from adopting profit-sharing or co-partnership as a plank in a political platform. I consider this to be prostitution, for political ends, of an ideal which, through example and experience, is rapidly permeating British industry."



The management is justifiably proud of the garden setting of their paper mills. The provision of congenial working conditions goes hand in hand with the generous profit-sharing schemes to make for a negligible turn-over in labour.

The best reason of all, Colonel Nash believes, for introducing such schemes is that you like the people who work for you, respect them as individuals and are conscious of the contribution they are making to the firm's overall prosperity.

The successful application of this philosophy demands, however, a flair for the practical. The management is well aware of the need for good communication and regard it as most essential that employees be kept informed and consulted about the profit-sharing schemes. Whenever modifications have been carried out, the Works Committee have always been consulted first, and every employee concerned receives, individually, a written notice of what is being done.

Wages Rates

Mention should finally be made of hours and wages at Cray Valley Paper Mills. In view of the handsome bonuses paid out, it might be thought that basic wages lag behind those paid by other firms in the same business. This, however, is most certainly not the case, as on average wages are 10 per cent. above the union rates. Women employees, incidentally, share in the annual bonus but not in the monthly one: instead, they are on a special piece-rate system. As bonuses are directly tied to production and as machinery must be kept running continuously to cope with the present flow of orders, employees work a four-shift system, based on a 42-hour week, under which each productive worker gets three full days off every eighth day, a 10-day cycle—work seven, rest three.

Colonel Nash claims that it is difficult to assess how much of his company's success can be directly attributed to the profit-sharing and co-partnership schemes, but he points out that, since their introduction, production has risen and continues to rise apace, that morale is extremely good and that labour turnover is negligible. Part of the reason, however, may be that conditions as a whole in the factory are very good.

Only on one count do the management feel a slight disappointment ; namely, in the rate of employee investment under the co-partnership scheme. It is felt that workers could take more advantage of the generous opportunities available. In 1954, for instance, which was a record year for such investment, this amounted to £3,280 out of a possible £13,380 that could have been left with the company.

But this is a problem likely to be met with by any firm. Taking thought of the morrow is not a current obsession with industrial civilisations. It would seem that education in the elements of share finance might well prove a necessary and profitable feature of co-partnership. Meanwhile at least one firm is certainly giving its workers a fair share in capital.

Rumour As A Barometer Of Morale

Editing Facts To Suit Feelings

IN the June issue of this journal we analysed the beginning and growth of rumours. We saw how rumours flourish when a situation is important, but ambiguous, to a group of people. An "important" situation is one which matters to us—and one which arouses strong feelings of fear or anger or hope. An individual passing on a rumour is giving expression to his feelings, rather than relating an objective fact. A rumour describing a disaster, for example, will be passed on by someone as an unconscious mechanism to justify, explain and relieve his own feelings of anxiety or fear.

It is not surprising, therefore, that a rumour changes its content and form as it passes from mouth to mouth. Each person is seizing on the aspect of the story which is *important to him* and passing this on.

Experimental work in this field, described by Allport, shows how the same story passed from person to person in different groups ends quite differently. In one small experiment I once conducted myself, a rumour which included a lot of figures and percentages was passed round a group of people. The first person happened to be a statistician by profession. He passed the whole set of complicated figures on correctly. The second person left them all out. When we analysed the results we asked the second person why he had left out the figures. His reply was: "Well, I did not consider they were important."

Allport quotes a similar example. A description including a lot of geographical details was passed accurately round a group of military people. Non-military groups soon omitted or lost the place names and distances and so on. The reason for this difference is also obvious. So each teller of a rumour will leave out bits which appear unimportant to him. A general tendency is to leave out precise numbers, names, amounts of money, dates—all things which most of us find difficult to remember.

Secondly, we listen to a rumour in the light of our own expectations. The great nature poet, Wordsworth, says he listened to *nature* and heard "the still, sad music of *humanity*". It might be as well if, before condemning this as a little odd, we pause long enough to ask ourselves what unconscious expectations do *we* have when we listen to a rumour? In a small community in America, for example, in 1945, just before the Japanese surrender, a Chinese professor stopped his car and asked the way to the top of a hill where he could see a view described in his guide book. Within an hour the rumour was circulating that a Japanese spy had ascended the hill to take pictures of the region. This community had little contact with orientals —the only ones they had heard much about *were* Japanese spies. So we can see how the rumour might change. One person would describe the stranger as "an Oriental", the next person would pass the story on and say he was "Japanese", and the next person would describe him as "a Japanese spy".

This illustrates also another mechanism which is usually present in the passing on of rumours. Just as we hear what we expect to hear and we cut out what is unimportant to us, so we each sharpen or exaggerate some other aspects. The Chinese professor soon became a Japanese spy and the guide book in his hand became a camera.

A research worker collected the following description of the fall of Antwerp in World War I from European newspapers. A German paper claimed that "when the fall of Antwerp became known, the church bells were rung". A French paper reported the German paper as having said that the clergy of Antwerp were compelled to ring the church bells when the fortress was taken. An English paper quoted these two papers as having said that the priests who had refused to ring the bells of Antwerp had been driven away from their posts. A Spanish paper changed the fate of the priests to "hard labour". Finally, a French paper reported: "According to information from the Spanish newspaper from Germany via London, the conquerors of Antwerp punished the unfortunate Belgian priests for their heroic refusal to ring the church bells, by hanging them as living clappers to the bells".

This is a very hostile rumour. It relieved feelings of anger and hate against the Germans. The kernel of truth became distorted and lost through people interpreting the story in the light of their existing feelings about the Germans. Some details were left out, others were exaggerated —the priests' punishment becomes more and more severe; the church bells were finally equipped with human clappers.

Similarly, a rumour circulated round a medium sized office to the effect that Mr. Y was going abroad and that Mr. X, another department head, and not Mr. Smith, Mr. Y's

Will Rumours Break Out Anyway?

People who are both well informed and contented with their working life, claims Discussion Leader, will not pass on wild rumours. They know the truth and have no strong frustrations to relieve. Has this been *your* experience, or have you found that even when people are happy at their jobs and enjoy the best of conditions they still have a weakness for the sensational story? In view of the importance now being attached to good communication in industry your views on this topic are specially welcome; and, as usual, a guinea will be paid for each letter published.

assistant, was going to be left in charge. The kernel of truth in this rumour was that Mr. Y's secretary had been seen studying airplane timetables. The rumour in the form I have quoted it, grew and spread, because people *expected* and wanted it to be true. Mr. Y had gone abroad before and had *not* left Mr. Smith in charge and Mr. Smith was unpopular with the office.

Amongst which people will rumours circulate? A person will not pass on a rumour if it is unimportant to him. So financial rumours will circulate amongst city men, but will not get past their wives' bridge tables. Popular and respected people will have more contacts than other people, so a rumour will travel fastest if it goes through these people. **One firm recognised this fact and made a practice of calling all the suggestion winners together to give them information about the firm's business. They found this the most effective way of spreading the news quickly.** Often an interested person will pass on a tit-bit of news, not because he thinks it is true or important, but because it makes him appear important. It is a nice feeling for all of us if we can be the first to say to someone else: "Have you heard that . . . ?"

Managers would find it fruitful to explore this rather neglected aspect of human communications, in their own concerns. What kind of rumours are circulating? Who is passing them on? What feelings are being displayed in the process? How are the rumours changing as they pass from person to person? People who are both *well informed* and *contented* with their working life will not pass on wild rumours. They know the truth and have no strong frustrations to relieve. Rumours can provide a barometer of group morale. What do you think? Are rumours inevitable in industry today?

DISCUSSION LEADER

Chance For Over-Forties

IN line with the Government policy on the employment of older men and women, the Home Civil Service is to recruit men and women over the age of 40. Special competitions, open to non-civil servants and temporary civil servants, will be held once or twice yearly to recruit to the clerical officer grade men and women between the ages of 40 and 60.

This arrangement takes account of the changing age distribution of the population and the need to make the fullest use of the country's manpower in conditions of full employment.

These Salesmen are Trained To Know Themselves

Here is an account of an interesting training scheme for salesmen which hinges on self-diagnosis. For the purposes of the course, three different types of customer are defined and the salesman's ability with each is appraised both by an outside panel and by himself. Assessments are then compared. One interesting fact revealed is that most salesmen are brilliant in handling one type of customer while unsuccessful with another.

By CHRISTINA HYDE

DESPITE the numerous training and education schemes being provided under modern personnel programmes, there is still a very real shortage of training schemes for sales staff. It is perhaps a legacy of the war years and the years immediately following when the sellers' market was so secure that most firms felt little need to build up a first rate sales team. Today, the picture is different: competitive selling is returning with a vengeance.

In the circumstances the sales training programme of a firm making pharmaceutical products is of much interest. It was planned empirically, for there is little documented policy at present since training sales staff is a technique still in the pioneer stage. The experience of this company, however, should be of value to other firms now engaged in tightening up their sales force.

First an attempt was made, before detailing a training programme, to break down the skills necessary in salesmanship. A salesman, it was decided, has an established sales "personality" so that a training technique would have to assist him in detecting and reinforcing the elements of that personality, while at the same time helping him to locate the weaknesses in his sales repertoire and correct them. The salesman, more than anyone in the whole executive and staff hierarchy, has to be helped to observe himself. He has to be constantly self-analytical because he and he alone, under a real life situation in the field, can know the immediate standard of his competence.

One of the skills of a salesman, for instance, is sensitiveness to interaction between himself and customer. For the new entrant salesman, it is easy to postulate sales and customer roles and to outline a method of approach, but it is impossible to fabricate in its complexity and true climate the interaction that will *actually* take place. For that, to equip the salesman with the habit of self-diagnosis, is the only way.

The training technique devised, therefore, had to have a dynamic element and the company evolved a method where selling situations were simulated, so that the salesman could not only be instructed, but also could be observed in that degree of interaction which he was able to establish with a customer.

That there are infinite varieties of customers goes without saying but for the purposes of the training programme three main types were defined. First the ambivert type, voluble, subtle, bluffing and not readily showing his hand. Secondly the introvert type, reserved, difficult to influence, not easily drawn out, and thirdly the extrovert type, militant, argumentative, knowing best, self-assured. With the first group, the salesman is tested in his ability to induce the customer to come down to brass tacks, to say what he really means; with the second to establish an easy, uninhibited relationship, making the customer like one and relaxing him into a receptive state; and with the third, the dissipation of the aggressive spirit in the customer, and the moulding him into agreement and acquiescence.

Since this was an experimental technique in the training of *established* sales personnel (as distinct from new entrants) it was decided to set up a pilot group and a cross-section of salesmen was taken and the tests applied to each man. None knew beforehand the nature of the test although all agreed to co-operate. Before the tests, each was assured that the sole object was to develop a training method which would enhance selling ability.

After each selling situation, in which the customer role was played by the same individual, the salesman filled in details of a record form which noted his estimate and impressions of the situation, the purpose here being obviously to indicate how well he had assessed the results of his own selling technique. The entire proceedings between salesman and "customer" were recorded on a tape machine so that the record of the development of the selling situation was there for later reference. An observer also watched the encounter and made a rating of the salesman's method. Furthermore the "customer" on his quiz form, recorded his reactions to the selling approach. There were thus four commentaries on the situation from divergent standpoints.

The Self-Inventory

The salesman's own inventory revealed how alert and sensitised he was to his handling of the situation—and this fact alone provided useful information from the training potential angle since it was felt that the man who thought he had done well when the majority thought otherwise, was a different trainee problem from the fellow who spotted quickly and accurately weaknesses which were pinpointed by other observers. The self-inventory also showed how exactly and pertinently the salesman had sized up the idiosyncrasies in the customer's personality and the individual responses both to the salesman and to the product.

The observer rated on such points as manner, voice, ease of approach, pertinacity, drive, ability to mould a situation that was made difficult by a recalcitrant or inhibited customer, and so on. The "customer" recorded his detailed reaction to the salesman personally and the responses to his approach as he developed the selling situation. Such questions were put as "did the salesman convince you; convert you; make you change your mind; have confidence in the product and in the firm's contractual technique?", and so on.

The rating was systematised and although the method depended largely on individual judgment, some standardisation of marking up was achieved and it was remarkable how much the test revealed consistent patterns.

It was noted, for instance, how often a salesman was outstandingly successful with one group of customer. This was interesting and informative data indicating as it did that the salesman concerned needed training with one particular bias. To clarify this perhaps rather obscure point; a salesman, for instance, would fail markedly with the introvert type, eliciting in the customer little response and unable to establish that rapport which was necessary to launch the selling drive. Training was therefore needed in the art of drawing out the inhibited, reticent type. The interesting fact revealed was that no necessarily general weakness was disclosed—the salesman was not generally a poor performer but brilliant with one type, perhaps, while unsuccessful with another.

An Overall Estimate

From the test results, reports on individual salesmen were compiled under standardised headings such as quickness of perception to customer idiosyncrasy; ability to mould a situation; facility in establishing a mutual liking, etc. The picture presented gave an overall estimate of the strength and weakness of each salesman and gave the training policy-makers a broad view of the field of good and poor performance, illuminating where polishing of the sales personality was required. A programme of remedial training was evolved from the data. Furthermore a follow-up system after the remedial training was established.

Any training method for salesmen must have the two main divisions. There must be the induction programme for new entrants and there must be the current, refresher training for men who have become experienced in the field.

The former will be easily generalised; the latter must be particularised and tailored to the individual. But the experimental and pilot scheme outlined above pointed one means of running a training system based on test, rating and remedial treatment, which notably improved the overall selling force. Where such a method is operated, some means will need to be devised to assess its value in terms of results in relation to cost and other factors. The scheme analysed above produced, it was computed, essentially worthwhile results in sending up sales. The method need not be long term: the results, if they are going to be worth the trouble, ought to begin to show pretty quickly.

6 Planks Of This Sales Training Scheme

1. ***The skills needed by a good salesman are first defined, so that the trainee's weak points can be given special attention.***
2. ***He is taught to be self-analytical all the time so that he can know how well he is doing in a real selling situation.***
3. ***Three types of customer are defined: ambivert, extrovert and introvert (see text). The salesman's handling of each is then tested.***
4. ***The proceedings between salesman and "customer" are taken down on a tape recorder for later reference.***
5. ***The trainee is asked to record his own impressions of how he fared in a test situation.***
6. ***Reports on individual salesmen are made out under standardised headings, e.g. quick grasp of customer idiosyncrasy, ability to mould a situation, etc.***

Duke Stresses Need For Clear Expression

THE Industrial Welfare Society has now issued the outline programme of the Duke of Edinburgh's "Study Conference on the Human Problems of Industrial Communities within the Commonwealth and Empire" which is being held next year from July 9 to 27. A detailed programme with working papers will be sent out in March 1956 to those invited to the conference.

In a foreword to the outline programme, the Duke said: "I cannot emphasise too strongly that this is a study conference not for research workers but for young people actually engaged in industry. Its main value will depend upon what the members make of what they see and hear. Its value will lie in the ability of the members to describe their points of view and experience for the benefit of others and their ability to distinguish what is likely to be useful in their own special cases. Ultimately it is hoped that the members will be able to extend their influence in their own countries and industries to the end that industrial enterprises are so organised that they form an integral part of a happy and healthy community."

Staff Selection in a Seller's Market—2

How to Select Young Office Workers

By **ELIZABETH SIDNEY**

This second article of the series tells how one firm selects and trains young people for shorthand/typist and other clerical jobs. Two features of the scheme are job analysis and pay during training. Candidates are shown at the interview that selection is a mutual process, that they have a choice as well as the firm concerned.

THIS title refers to the practice of some large companies of selecting youngsters to be trained for clerical work in the company's own training department. For example, one large company headquarters offers school leavers a training in shorthand, typing and general office work, while in the pay of the company. The girls work as office juniors for half of each day, but otherwise stay in the training school until they reach standard speeds. They then go into the typing pool and from there may be posted as junior shorthand typists.

A scheme of this sort is only possible for large companies, but it has the advantage of ensuring that staff are properly trained and that the company can select suitable youngsters. The double attraction of good clerical jobs and pay while training means that many girls are anxious to join the company.

In this situation it is easy to apply the basic principles of selection and to study those principles in use, in a simple form.

In one company which provides clerical training, a woman personnel officer is responsible for selecting and for supervising the work of all clerical staff. Her first job is to ensure that the right staff join the company and she has therefore spent some time developing her selection procedures. She first discovered what qualities were needed by interviewing clerical staff in each grade and asking them to describe their jobs and to say what aspects of the work they liked and disliked and what aspects they found easy or difficult. She asked executives about the type and quantity of work they gave their secretaries and what qualities made a secretary particularly useful to them. She visited the typing pool and discussed the work with the typing pool supervisor, and noted the physical conditions of work.

As a result, she was able to list the qualities needed to make a good clerical worker and also to list the contra-indications. She has since amplified this record from studies of successful and unsuccessful workers and from discussion with staff employing clerical workers. She grouped the information about the company's clerical work under the following headings:—

The shorthand and typewriting training department at **Pilkington Brothers Ltd.**

Pay. Maximum and minimum of different grades. When paid. Overtime. Pay while training.

Conditions of Service. Normal working week. Possible overtime. Notice required and given. Holidays. Length of training. Possible travel or transfers. Concessions and privileges.

Physical requirements. Appearance, dress, voice, manner, health.

Mental requirements. Intelligence, memory, verbal and arithmetical ability, accuracy.

Attainments. Academic, special training, general knowledge.

Social requirements. Type and range of social contacts. Importance of social skill. Social duties.

Responsibilities. Making arrangements and organising. Looking after equipment. Supervising others.

The details ranged from the minimum required of a typist to the duties of a senior secretary.

Since preparing her first record the personnel officer has also gathered information on the successful employees in each grade, by studying the labour turnover records and the merit rating forms. Selecting those employees in each grade who have stayed and are thought efficient, she has compared their personal characteristics with those of employees who have left unregretted.

These comparisons can be made in various ways. For example, the personnel officer might have taken the item "Age on Joining" and divided it into two categories, and plotted the number of good and poor workers in each category.

A simple table like this would tell her that a girl aged 17+ would be much more likely to stay with the company than one joining before she was 17. While some items she studied would prove insignificant, others would add to her knowledge of the type of applicant to accept.

All this has meant a great deal of work and it may be useful to consider how important it really is. When a vacancy has to be filled, many managers rely on their existing knowledge of the job without any special study to ensure that it is accurate and adequate. After all, they may argue, people are not like parts of an assembly, which either fit exactly or not at all. **A man who lacks the precise qualifications needed may still learn the job and become a valuable employee. And jobs can be altered too. In these circumstances, a general idea of the person wanted may be as useful as a detailed specification which takes a long time to prepare.**

A job analysis, however, often serves to show the limitations of some time-honoured stereotype about the person wanted. Dr. Argyris of Yale, speaking here in May this year, described a study of bank employees which he had been asked to undertake by their company's chief executive. This executive felt that the bank clerks worked less than before the war and that discipline was slacker. Dr. Argyris asked how these clerks were selected, and was told, "Oh, we can always spot the right type."

In his study, Dr. Argyris concluded that the chief executive was in fact selecting one type of person very consistently. All the employees shared many characteristics. They were conscientious, careful over details and scrupulous: they preferred working on their own, and bosses who left them alone. These qualities were well suited to their work.

Another aspect of the "right type," however, was that he was very ambitious and expected to advance through his own efforts. This was where the job had changed since the war. The work of a bank clerk has dropped, comparatively, in both salary and status since the war, and in this bank there were very few chances of promotion. The employees were still working carefully, but were feeling that their efforts were unrewarded and unrecognised and so they had come to refuse all extra commitments. This investigation showed how an idea of the "person wanted" may need to be checked and modified.

I have discussed job analysis at some length because it seems to me a neglected side of selection. The other half of the story is collecting information about the applicants.

In our day-to-day experience of acquaintances, we gradually come to perceive the persistent patterns in their behaviour: we discover that X always enjoys a party, and that Y is always afraid of authority, and so on. Eventually we feel able to predict on this basis and to assume, for example, that Y will agree with the boss in a certain situation because he has always done so in the past. All selection procedures attempt to collect in a limited time enough facts about a person's past and present behaviour to enable the selector to forecast what he will do in future in a particular job.

Thus a well-designed application form asks for a number of specific facts about the applicant's career, and a well-planned selection interview serves to check, elaborate and interpret this information and to supply some other information. Properly designed tests—whether intelligence tests, aptitude and trade tests or tests of leadership and skill in discussion—provide a sample of the individual's behaviour in certain situations which the selector can accept as typical. When we take up references we are trying to borrow the experience of people who have observed the applicant over a long period of time.

Probably the most usual ways of collecting facts about an applicant are by application form, selection interview and through references. Many companies dispense with an application form for lower grade staff and taking up references is a task which sometimes goes by default. But it seems that no employer can allow a man into his works without first taking a look at him.

SIX SELECTION POINTS:—

1. *Ask existing staff about the qualities needed for various jobs.*
2. *Study the reasons why in the past some people failed and some succeeded in a particular job.*
3. *Draw up a well-designed application form, asking for facts not opinions.*
4. *When writing for a reference to the candidate's previous firm, explain fully what the job entails.*
5. *Explain the job and the work of the firm at the interview.*
6. *Stress that it is also up to the candidate to choose the firm.*

We can all sympathise with this, but it is unfortunate that the interview is retained as a method of selection when all other sources of information are neglected. A poor selection interview is possibly the most inaccurate method of selection there is, and a good interview takes a great deal of skill and should be based on the information provided by an application form.

References are often less useful than they should be, but I think the blame for this frequently lies with the person requesting the information. A formal letter asking in general terms whether a candidate is suitable for employment hardly merits more than the bare reply that the candidate is suitable. When writing for a reference it is better to explain fully what the job entails, and to point out that it is as much to the applicant's advantage as to the company's to have a frank opinion about whether he is suitable for the post. Referees should also be asked how long they have known the applicant and in what capacity.

The personnel officer responsible for clerical staff collects her information about the applicants through an application form, an interview and references. She has found that her recruiting work in the schools has helped her to obtain useful references. Visiting local schools she has come to know the heads and careers teachers who are usually given as references by school leavers and who will now help her with a frank discussion of the candidates.

The application form is sent to all girls applying for work. It asks for exact information which cannot be distorted or misread and it avoids asking for opinions and values, which the personnel officer thinks are best gathered in an interview.

Her interviews are private and generally take about 20 minutes. She uses the interview to learn whether the applicant has the manner to make a good clerical worker, and, basing her questions of the information given in the application form, to form an opinion of the girl's intelligence and character. She also uses the interview to explain the job and the work of the company.

She believes that her interviews are more successful if she can show the applicant that selection is a mutual process, in which a candidate decides whether to join the company as much as the company decides whether to employ her. In her experience, girls who see the interview in this light talk more helpfully than girls who see it as a test.

How this general approach to the interview is applied to different situations is something I shall discuss in a later article. The value of this approach, however, is supported by the remarks of another Personnel Officer, working for a large retail store, who recently said to me, "My difficulty was the number of girls I engaged who did not turn up on the day arranged, and neither 'phoned nor wrote to warn me. We lost quite a few that way. I thought it over and decided I should spend more time describing the job to them. In the last month, since I have started giving a thorough picture of the work and prospects here, not one girl has failed me. They don't all come—but they always let me know. I think the reason is that I have treated them as people and not just as prospective employees, so they treat me as a person too."

People At Work

THE AMERICAN FOREMAN AND HIS PAY PACKET

THE "typical" American production foreman earns $6,241 a year, according to a survey of foremen's compensation just released by the Executive Compensation Service of the American Management Association.

The survey, conducted from December, 1954, to February, 1955, covered 6,500 foremen in more than 100 companies in various sections of the country. From its results emerged the following profile of the "typical" foreman:

He is 45 years old and has been on his present job eight-and-a-half years. He supervises 42 hourly workers. Last year his salary was raised by 6.3 per cent; 66 per cent received raises in 1954. He may or may not have received a bonus in addition to his regular salary; bonuses were paid last year to 40 per cent of the durable-goods-industry foremen included in the survey.

The study covered four categories of foreman: "typical" production foreman, the foreman of a major production department, the general foreman, and the maintenance foreman. In durable-goods industries the average major-department foreman earns $7,416 a year; the average general foreman, $8,479 a year; and the average maintenance foreman, $6,822.

All these figures apply only to first-line supervisors in durable-goods industries. In non-durable-goods industries salaries, salary increases, and bonuses of foremen tend to be somewhat lower.

The study found no practical differences in foreman compensation among various parts of the country. This is not the case with hourly employees, the report points out; there are known regional differences in average hourly wages. In the case of foremen, however, the differences in job content—particularly the number of employees supervised—were more important than location in determining the salaries paid.

Ambassadors

IN the annual report and accounts of *Oldham & Son Ltd.*, the Denton battery and electrical engineers, the chairman, Mr. John Oldham, O.B.E., discusses the need for careful selection of technical personnel going overseas "not only for their specialised knowledge, but for their qualities of adaptability, tact and discretion. Such men I regard as one of Britain's most valuable and enduring exports. At the moment, the demand exceeds the supply."

"I feel", he continues, "that family businesses of the old-established type—by whom so much of Britain's industrial strength was built up—have a considerable part to play. Operating largely by personal contact, and aided by their natural flexibility, they can take rapid advantage of new opportunities as they arise. These qualities can contribute much towards the solution of those delicate and intricate problems inevitably associated with the management, training and control of labour in newly-established industries overseas. They can, I feel, make a vital contribution to forging new Commonwealth links of unity and co-operation."

Following last year's precedent, a special issue of the firm's house magazine *The Grid* was sent to shareholders.

Annual Phenomenon

THE conservative nature of the majority of workers in the Midlands was again indicated by the virtual standstill of industry during the last week of July and the first week of August, caused when nearly a million took their annual holidays. It remains a source of wonderment to employers and trade union officials that employees over a wide area continue to pick the same overcrowded period.

Despite repeated efforts to stagger holidays, nearly all workers have resisted every attempt to switch them from the traditional period. In Coventry, unions and employers' associations, by local agreement, chose that fortnight. For the Birmingham, Wolverhampton, Black Country and Stafford area, however, the parties merely decided to leave holiday dates for mutual agreement between each employer and his employees. But nearly all the workpeople still choose the same time, and refuse to budge from it.

Prior to 1951, when the paid holiday in the engineering industry was increased from one week to two, there was an agreement by which Midland workers took the week before the August Bank holiday. After the war, employers in the Birmingham area acceded to a request from the unions to relax the existing agreement in order to ease staggering of holidays—but the same dates have usually been chosen since.

The causes of this annual phenomenon are not restricted entirely to the behaviour of employees, however. Midland industry, particularly in the motor trade, is extensively interdependent, and large sections feel obliged to take their holidays simultaneously. They foresee production difficulties if their holidays were to get out of step with those of their suppliers. Some firms, too, favour the present dates because their financial year ends on July 31, and they do their stock-taking during the holiday.

Constructive Careers

CHANCE For A Lifetime is the title of an artistically - produced booklet published by *John Laing and Son Ltd.*, the building and civil engineering contractors, which sets out to attract recruits for a career in construction.

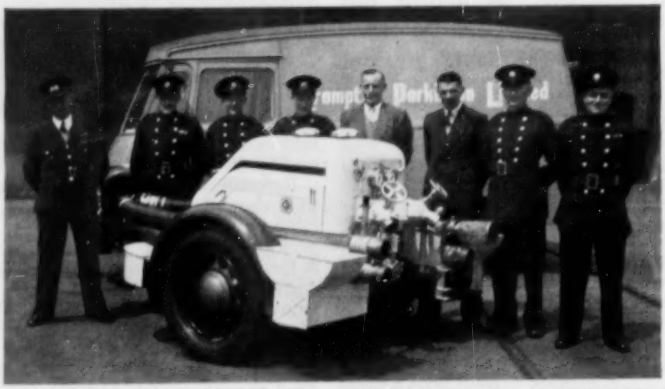
The booklet, copiously illustrated with photographs of some of the company's biggest projects as well as of the educational and recreational facilities offered to employees, emphasises the importance of construction to the nation.

The many-sided nature of the work is expertly explained, and the publication includes a brief history of the firm's growth.

Dock Probe Team

CHAIRMAN of the Committee of Inquiry into the Dock Labour Scheme is Mr. Justice Devlin, who is a

FIRE-FIGHTING EXPONENTS



One of the successful groups to compete in the annual competition of the Eastern Branch of the Industrial Fire Protection Association of Great Britain was this team from the **Crompton Parkinson** Chelmsford Works. They won the five-man large trailer pump drill in 21.6 seconds and were presented with the Ministry of Supply Silver Cup and Diploma.

Judge of the High Court and has been Master of the Bench of Gray's Inn since 1947.

The other members of the Committee, which has been set up to "inquire into the working of the Dock Labour Scheme and to advise what alterations, if any, should be made in the terms of the Scheme" are Mr. J. A. Birch, general secretary of U.S.D.A.W., Sir Frederick Rees, Professor J. C. Smith, and Mr. A. B. Waring, who is chairman and managing director of *Joseph Lucas (Industries) Ltd.*

The secretary of the committee will be Mr. W. A. Treganowan, of the Ministry of Labour.

More Pay

SOME 500,000 civil servants with salaries up to £1,500 a year will benefit from the 5 per cent increase granted recently by the Civil Service Arbitration Tribunal. It will cost another £15,000,000 a year.

Young persons with salaries under £350 a year will get another £18, while those earning between £350 and £500 get a rise of £21. Men and women with salaries between £500 and £700 benefit by £30 and those between £700 and £900 by £40. Between £900 and £1,500 the rise amounts to £60.

Post Office workers are not included under this award but have been awarded increases under another Tribunal decision under which male Post Office workers in London will get from 5s. to 10s. 6d. a week more. Increases for women and provincial Post Office workers are to be adjusted accordingly.

OBITUARY

Sir Charles Bartlett, former chairman of *Vauxhall Motors* and a past-President of the Royal Society for the Prevention of Accidents, died at his home near Harpenden, Herts, on August 11.

Born in a Gloucestershire village in 1889, Charles John Bartlett left school at the age of 12 to work in a bicycle shop. But he longed for an outdoor life, and decided to take up gardening. Then came the outbreak of war in 1914. He suffered a wound at Loos which compelled him to abandon his ambition to work outdoors.

On discharge from the Army he joined the London office of *General Motors Ltd.*, the English subsidiary of the General Motors Corporation of America, as a clerk. In six years he rose to be managing director of the company.

In 1930 he was appointed managing director of *Vauxhall Motors*, a post which he held for 23 years, and he was chairman from 1953 until last December.

His career was distinguished by his enlightened approach to the human problems arising in all factories where much of the work is of necessity dully repetitive. He was particularly well-known for his work on behalf of the Royal Society for the Prevention of Accidents until forced to give this up recently through failing health.

Stock Shock

HOW the best of intentions can go awry without effective communication was poignantly proved by the experience of an American firm, *Bassons Industries Corporation*, New York, when it decided to launch a co-partnership scheme last Christmas.

Instead of regular cash bonuses, the management decided to distribute "common stock" in the firm. "The surprise failed", said the president. "We got an immediate and violent reaction that caused the first serious labour difficulty we had in 30 years' operation."

The stock coupons read "common stock, par value 50 cents", and a good many of the 200 employees took this to mean that each share was worth only 50 cents whereas the market value of each share was $2.50.

One worker had actually offered to trade six shares for a carton of cigarettes, while even some of the white collar workers had no idea of the real value of the stock. Two of the more sophisticated employees, however, had done a thriving business by buying up shares at $1 or, as they put it, at "a 100 per cent mark-up".

The company had *assumed* that their employees would know the real value of the stock and had reasoned that, because relations between management and workers had always been very good, the latter would welcome the chance at sharing ownership even without a full briefing.

"The lesson we learned was this", said the president, "even good news must be treated carefully by management. The most innocent change in the status quo can set off a misunderstanding that may take many years to correct. Four steps should be taken:—

1. Prepare personnel in advance,
2. Sound out reactions,
3. Have detailed explanations ready, and
4. Solicit immediate questions when the event occurs.

APPOINTMENTS

MR. EDWIN FLETCHER has been appointed Deputy Director of the European Productivity Agency.

Mr. Ted Fletcher—as he is generally known—has been in charge of the British T.U.C. Production Department since its formation in 1950. He is an M.A. of Cambridge University, where he read economics, and an Incorporated Accountant.

Mr. Fletcher is also a member of the British Institute of Management Trade Union Advisory Committee, the Advisory Committee of the Cranfield Work Study School, and the British Standards Institution Committee seeking agreement on Work Study terminology. He has been a frequent contributor to conferences of such organisations as the British Institute of Management, and the Institution of Production Engineers.

SIR ROBERT BURROWS, has resigned from the chairmanship of *Remploy* after having been in the office for the last six years. Sir Robert, who is 70, retired at his own request. He is succeeded by **Mr. A. T. S. ZEALLEY** who was recently appointed to the Remploy Board with a view to his taking over the chairmanship. Mr. Zealley, however, will not be able to take on the post until some time next year so the vice-chairman, **SIR BRUNEL COHEN,** has agreed to take over in the meantime.

MR. WALTER ALFRED CLARKE has been appointed production development manager at Dunlop's German factory, Hanau, as from August 15. He became a laboratory technician with Dunlop at Speke and was appointed technical manager, precision components, in March 1950, and, in March 1951, factory technical superintendent. In October 1954 he went to India as relief technical manager at the Dunlop factory. He returned to England in May this year.

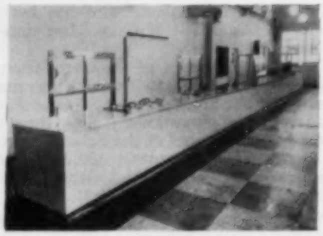
MR. J. S. DUMERESQUE, who was on Lord Louis Mountbatten's staff in Ceylon and Malaya during the war, has been appointed general manager of *Semtex Ltd.*, the *Dunlop* subsidiary. He was in charge of public relations, newspapers, films, broadcasting, censorship and printing during the British Military Administration of Malaya.

The International Labour Organisation's Governing Body has elected **ARTHUR H. BROWN,** Deputy Minister of Labour of Canada, as its chairman to succeed **PROF. ROBERTO AGO,** of Italy. **PIERRE WALINE,** of France, has been re-elected employers' vice-chairman and **SIR ALFRED ROBERTS,** United Kingdom, workers' vice-chairman.

MAJOR W. F. F. SCOTT, director of Training and Welfare at *Tube Investments Ltd.*, relinquished his appointments with the company on July 31 upon reaching retirement age.

Left: General view of the kitchen showing the spacious layout of the up-to-date gas and steam cooking equipment.

Right : The new, stainless steel topped, hot and cold service counter in the works dining room is 49 ft. long and includes a shop section for the sale of sweets, cigarettes, etc.



How Modern Plant Increased Canteen Output

By **PETER LOCK**

To cater for the greatly increased number of workers now employed at their Cefn Coed factory, near Merthyr Tydfil, *Teddington Aircraft Controls Ltd.* have recently completed an extensive rebuilding programme for the works restaurants. The old main kitchen, which was designed for a staff of 600 with a peak capacity of 200 meals per day, has been absorbed into the factory space and a new kitchen has been built which can deal comfortably with the demands of the present staff of 1,300.

The restaurant block now covers an area of 12,000 sq. ft., containing on the ground floor the main dining room, stores and the up-to-date kitchen. The staff dining rooms are on the first floor with the service section situated immediately above the kitchen ; a service lift connects the two and a steam-heated cabinet hot closet has been installed on the first floor, adjacent to the lift, for the storage of hot food.

All service is on the cafeteria principle, and a new 40 ft. stainless steel hot and cold service counter, fitted with three bain-maries, has been installed in the main dining room. At one end of this counter, extending a further 9 ft., is a shop section for the sale of cigarettes and sweets, etc. Two special steam-heated cabinet hot closets have been built into the back wall of the service counter while an ice conservator stands in a recess.

The menu changes daily and offers a wide selection of dishes, a choice of two hot dishes, four vegetables, four cold dishes and various beverages being always available at very modest prices. A typical meal consisting of joint, two vegetables, sweet and beverage costs 1s. 7½d. in the main dining room. In addition, junior employees below a certain salary grade are allowed a discount of 6d.

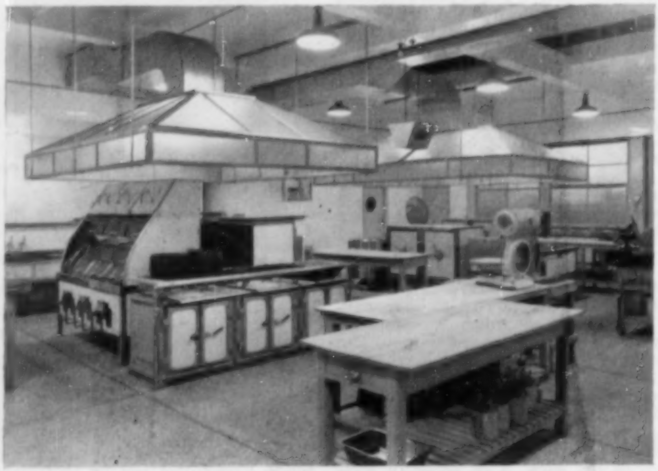
The new kitchen, measuring 57 ft. by 33 ft. with subsidiary rooms for vegetable store, dry store and office, is equipped with the most modern gas and steam cooking appliances and is capable of supplying over 800 main meals per day plus light refreshments for a buffet service during staff breaks.

Cooking equipment, all by *R. & A. Main Ltd.*, has been arranged in two main island suites. In one island, the general cooking suite equipment comprises one four-oven central gas range with bain-marie extension, one cabinet type roasting oven and one general purpose oven which has been specially adapted to incorporate a gas-heated proving oven underneath. The other island suite is made up of three steam-jacketed boiling pans, one two-pan gas-heated fish frier and one battery of two wet steaming ovens.

The pastry preparation and vegetable preparation sections are situated at the rear of the kitchen, the equipment in these sections comprising three stainless-steel vegetable preparation sinks, two electric potato peelers and peel traps, a chipping machine, one 30 qt. mixing machine and a 5 ft. by 2 ft. marble-topped pastry preparation table. The pot-washup department, containing two double-compartment stainless-steel pot sinks with drainers, is also at the rear of the kitchen. The crockery-washup section is equipped with a *Dawson* Model "A" dish washing machine complete with stainless-steel in and out tabling and sink unit.

A new ventilation plant has been installed to ensure comfortable working conditions. Drop-screen canopies in glass and stainless steel are mounted over both main island suites and also above the dishwasher and the two water boilers. The main trunking from these screens is led to a slow-running, silent, centrifugal fan unit which is capable of exhausting waste products at a rate of 11,200 cu. ft. per minute.

BRIGHTER COOKING



Well diffused illumination in the open parts of the new canteen kitchen at the Scandinavia Mills of **British Belting and Asbestos Ltd.**, Cleckheaton, Yorkshire, where the lighting fittings have been arranged with due regard to the canopies. Covers have been installed in the open area, each finished in *Crysteel* vitreous enamel.

fresh tea
24 HOURS A DAY
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Fresh tea made automatically at a speed of 600 cups per hour . . . The Peerless BRUIN does all this, is amazingly efficient and economical, and brings substantial savings.

IN INDUSTRIAL CANTEENS

A Bruin has been serving 1,000 cups of tea out of the 3,000 total served from three tea points. Previously two full-time and one part-time girl serving from gallon teapots maintained this point. The Bruin needs only *one* part-time girl, and each cup of tea was better and hotter, and produced in a shorter time.

Using the Bruin, a gallon of tea costs only 1/- *to make and serve*! If 450 8 oz. cups are served in a day, the machine pays for itself, out of gross profit, in 35 DAYS at 2d. per cup!

The Bruin is an economic proposition in any canteen where at least 225 cups are served in a day, that is where there are 75-80 users. In the larger canteens, of course, two or more Bruins are required.

Write now for further details of the BRUIN Automatic Tea Brewer and Dispenser

ON INDUSTRIAL SHOP FLOORS

On the factory floor, dealing with the mid-morning and afternoon tea break, the Peerless BRUIN offers these incomparable advantages : The tea is always better than that made from an urn and quality is constant. The tea break can be controlled to the exact times laid down by the management.
Nearly all labour involved in trolley service is cut. Individual tea making is eliminated.

Here are actual examples of the Bruin's time, money and labour-saving qualities:

FACTORY 1: 800 *men to be served tea—10 minutes break staggered over 40 minutes.*
Before : 10 *girls needed at £5 per week.*
After : 1 *girl only needed. Tea service completed in 40 minutes. Saving: £2,340 p.a. (9 girls). Capital expenditure on 3 Bruins and 3 boilers approximately £920. Equipment paid for out of gross profit in 3 months 1 week.*

FACTORY 2: 250 *men to be served tea—all previously went to canteen.*
Before : 2 *full-time, 1 part-time girl needed.*
After : 1 *part-time girl only needed. Tea break reduced from 15 minutes to 10 minutes. Saving: 1,400 man-hours per annum.*

FACTORY 3: 4,500 *workers to be served tea—10 minutes break, all served within 5 minutes.*
Before : 55 *girls needed.*
After : 5 *girls only needed. Saving: 50 girls and 2 brewing points, approximately £10-12,000 per annum. Capital expenditure on 80-90 Bruins and 50 boilers (£15,000) paid for out of gross profit in 9½* **months!**

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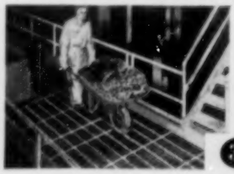
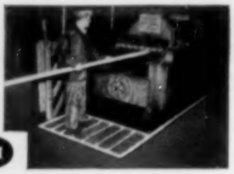
'WETORDRY' NON-SLIP SURFACING





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New Industrial Equipment

EXECUTIVES' SURVEY OF AIDS TO INCREASED PRODUCTION

Readers who wish to know the suppliers of any of the products referred to in this section are asked to write to the Editor, quoting the reference number which appears at the end of the paragraph. We are always glad to consider for publication descriptions—preferably accompanied by an illustration suitable for reproduction—of new products.

Handling

SELF-LOADING TRAILER

A NEW self-loading pallet trailer, designed to obviate the use of fork trucks in loading and unloading, is now on the market. It consists essentially of a pair of forks with a hydraulic jack, mounted within a trailer chassis which is open at the rear. The trailer is manoeuvred by hand until the wheeled side arms straddle the load, and the forks in the lowered position slide under the pallet. A few strokes of the hand pump raise the forks off the ground and elevate the load, so that the trailer with its load is ready for towing.

Each trailer is fitted with a bar hinged at the rear end of one of the side arms. When the load is picked up, this bar is swung across and secured on the other side arm with a heavy pin. Further trailers can be coupled up by means of a towing bracket. The bar also serves to bridge the gap at the rear of the trailer and to prevent the load from slipping off on steep inclines.

The trailers have a load capacity of one ton. The forks lift six inches so that stillages as well as pallets up to 48 in. by 48 in. can be handled. They can be towed by any tractor. **(PM/989.)**

OUTDOOR FORK TRUCK

THIS "Overlander" is a fork lift truck in the accepted sense, and it can operate under such conditions as would often be met by public works contractors at home and abroad, in timber yards and open storage sites, on harbour installations, marshalling yards, and air fields, and in oil fields and outlying areas which frequently introduce the need for the handling of materials and equipment over long distances and open country. At the same time the "Overlander" can travel on the roadways at over 30 miles per hour.

It is a four-wheel vehicle, powered by a six cylinder diesel engine. Transmission is by a torque converter, of the hydraulic type, through a pneumatically controlled epicyclic gearbox. This type of drive is claimed to give a smoothness and a power of starting and control far beyond anything attainable with the conventional clutch and gearbox.

Also fitted is an auxiliary gearbox with four forward and one reverse speeds in either direction. That is, as a road vehicle the "Overlander" has four speeds and one reverse speed. When operating as a fork lift truck the appropriate selection of gears can provide four forward speeds and one reverse speed.

The stacking unit is of conventional design with the usual 2 : 1 lift feature; the lifting mast can be tilted forward and backward. Steering is power-assisted by hydraulic booster jacks, the design being such that four wheel or two wheel steering may be selected to suit either fork lift truck or road travel duties, while brakes are fitted on all four wheels.

A further interesting feature is the built-in equipment for tyre inflation control. Bearing in mind the need for differing tyre pressures for road, rough country and soft ground operation, this permits tyre pressures to be varied at will. Provision is made for a simple plug-in to the tyre valve, beyond which all that is required is operation of the inflate or deflate selector. The resultant pressure can be read on a pressure gauge fitted for this purpose. **(PM/990.)**

VERTICAL SHELVING

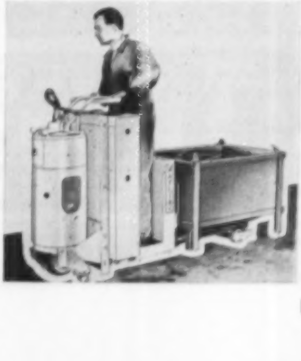
IN developing *The Industrial Giant*, the designers aimed at maximum flexibility of use coupled with simplicity of assembly. It is one of the latest additions to the range of vertically-stacked trays and shelving.

Erection is simple and rapid, since assembly consists merely of inserting the leg components through the mesh of the trays. Extra tiers can be added to order. They can be suspended from a wall, stacked on the floor, or be transformed into mobile units by the use of a trolley accessory, as shown in the picture. Easily moved panels sub-divide each tray.

The trays are 4 ft. long, 18 ins. wide, and 6 ins. deep. They are constructed of welded mesh surrounded by a top rail of ⅜ in. oval section. Each contains 500 welded points, and as a storage unit has a carrying capacity of roughly 1 cwt. Dismantled, they pack flat, and the manufacturers claim that a 10-tier unit reaching 153 inches from the floor can be packed in a container only 24 inches deep. **(PM/991.)**

STILLAGE RIDER

THIS new "ride-on" stillage transporter is being produced in four models with capacities ranging from



1,000 lb. to 4,000 lb. either battery or petrol powered. It is designed so that it can be used in extremely confined spaces, the overall length, excluding the stillage platform, being 39½ inches for the battery models, and 32 inches for the petrol models.

Control and steering is by means of a "deadman" tiller, which is integral with the power unit and drive wheel, permitting instant speed selection and a smooth start. The manufacturers claim that the truck can be moved a fraction of an inch at a time, laden or unladen, by unskilled operators.

The battery model is powered by a 24-volt constant-speed motor. A special stand is available to facilitate battery removal and storage. Petrol models are powered by a four-stroke air-cooled engine. A feature of the petrol unit is a special air-cleaner which allows the truck to be used in dust-laden atmospheres.

Typical total unladen weights with a 36 in. by 18 in. stillage platform are: battery models 1,455 lb., petrol models 952 lb. **(PM/992.)**

LONG-RANGE CONVEYOR

A COMPLETELY new range of portable conveyors with large range discharge height have recently appeared on the market. There are five models, ranging in capacity from 80 tons an hour on materials at 50 lb. per cubic foot to 200 tons an hour.

This picture shows the biggest model, the *Hylo-Veyor*, fitted to a *Loband* loader which is transferring run-of-mine coal direct from a tipping lorry to railway trucks at a rate of about 200 tons an hour. This model is available in lengths of from 40 ft. to 62 ft. centres, and discharge heights up to 30 ft.

The standard belt fitted is of four-ply 32 oz. duck type, with vulcanised rubber covers which can be thickened-up for heavy duty handling. They can move at speeds ranging from 100 ft. a minute to 480 ft. a minute.

The feeding hopper, hinged at the back and secured by four knurled screws, can easily be uncoupled, enabling the machine's tail end to be cleaned.

The overhang conveyor is designed so that two-thirds of its length is on the discharge side. The elevation is by means of hydraulic jacks. The driving unit can be an air-cooled petrol engine, a diesel with in-built clutch, or a totally-enclosed surface-cooled squirrel caged motor.

SILENT SERVICE

THIS is a portable chain and slat conveyor of improved design which, by the use of special cushioning, is exceptionally quiet-running. The conveyor can handle a maximum overall load of 4 cwt., and has a delivery range of between 5 ft. and 9 ft. 7 ins.

Its novel features include electrical switchgear inset in the conveyor boom for cleanliness and smart appearance; remote control "on-off" buttons at the boom head; and totally enclosed geared motor seated on anti-vibration mountings to reduce vibration to a minimum.

Parana pine slats, 21 inches long, are fixed to chain of 3,000 lb. breaking strain. The boom is elevated by means of two hydraulic jacks with a hand pump. **(PM/993.)**

VERSATILE CRANE

THE manufacturers of this one-ton mobile crane set out to provide an alternative for jobs where previously hand-labour had seemed the only answer. Versatility was also their aim, and this equipment is equally at home as an excavator, a grab, scoop, skimmer, or a shovel.

Of fabricated steel construction throughout, the crane has a 12/20 b.h.p. two-cylinder air-cooled diesel engine. All motions are driven by an interchangeable drive unit, totally enclosed, running in oil. The jib, of standard lattice design, is 20 feet long, but this can be extended to 24 feet, 30 feet, or 34 feet by the addition of prefabricated sections.

All parts are interchangeable by virtue of its unit construction. The changeover from wheels to tracks, or vice-versa, can be accomplished within an hour, claim the manufacturers. Front-end conversions take only a matter of minutes. **(PM/994.)**

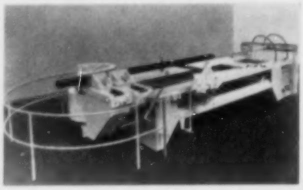
Efficiency Aids

TUBE BENDER

A NEW design of tube bending machine, capable of 180° bends in tubes up to 3 in. nominal bore and radii, has recently been completed. The tubes are bent cold and unloaded, the actual bending time being 25 seconds.

The machine consists of a fabricated base made from rolled steel sections and boiler plate welded together. A vertical shaft is mounted at the front end, in a roller bearing at the top and a ball bearing at the bottom. The swinging head is keyed to the top and bottom of this shaft which is rotated by a sprocket wheel mounted on it between the bearings. The sprocket is moved by a chain and a high-pressure hydraulic ram.

Also mounted on the front end of the main frame is a pressure die to take the reaction of the straight part of the tube during bending. The free end of the driving chain is attached to a smaller ram which returns the swinging head under no load after bending. The hydraulic system is fed by a power-pack consisting of a swashplate pump driven by an electric motor and flexible coupling.



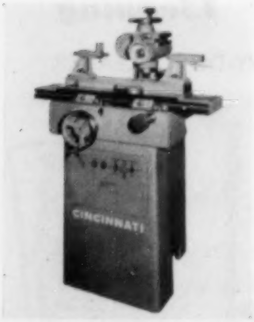
These machines can be supplied to bend any size of steam pipe or similar material up to 12 in. bore to radii in accordance with British Standards specifications. **(PM/995.)**

TOOL GRINDER

LATEST addition to a wide range of tool-room equipment is this cutter and tool grinding machine, which is designed primarily for reconditioning miscellaneous small tools and cutters. It has a capacity of 8 in. swing and 15 in. between centres.

The new model has a cartridge-type grinding wheel spindle mounting with a double row of specially pre-loaded anti-friction bearings, packed in grease for long-term lubrication.

A reversible ½ h.p. motor drive, built in to the wheelhead, provides the desired direction of grinding wheel rotation to suit any particular application. Spindle speeds—6,260 or 3,730 r.p.m.—are easily



obtainable from a tooth grip drive belt and sheave arrangement.

Duplicate controls give the operator a choice of handling the machine at the front, right-hand end of the table, or at the rear, right or left-hand side of the wheelhead. Curtain-type dustguards beneath each end of the table protect the anti-friction slide and table movement operating controls from abrasive dust.

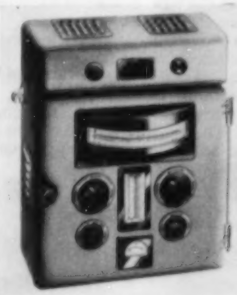
An interesting innovation is the 360° eccentric wheelhead swivel, which facilitates grinding operations and assures ample capacity for grinding large diameter cutters requiring the full 8 in. swing capacity of the machine. Clearance-setting dials on both the workhead and left-hand tailstock permit setting for predetermined clearance angles. **(PM 996.)**

OXYGEN METER

A NEW oxygen meter which can readily detect changes in oxygen concentration of ½ volume per million made its debut at the Instrument Industries Exhibition in London, recently.

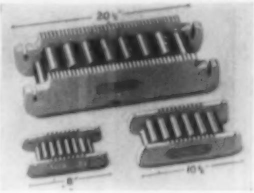
It is claimed that the meter will continuously measure traces of oxygen present as an impurity in other gases, and covers the range 0-100 volumes per million. At maximum sensitivity, the full-scale deflection on the 10-inch scale of the meter represents 10 volumes per million, so that changes in oxygen concentration of only ½ v.p.m. can be quickly detected.

The accuracy of the indication is claimed to be less than plus or minus 5 per cent. of full-scale deflection, and the response of the instrument to changes in oxygen concentration is almost instantaneous.



The manufacturers recommend its use in many metallurgical and chemical processes where the maintenance of an oxygen-free atmosphere is essential. The instrument measures approximately 24 in. by 18 in. by 12 in. **(PM 997.)**

MACHINE SKATES



THESE skates offer a safe way of moving heavy machinery in any direction quickly and efficiently. More specifically they are for use singly, in pairs, three, four or more under heavy machines, structures or objects of almost any kind, up to 20 tons per skate. Another skate is available which will carry up to 40 tons.

They resemble the tracks of a tank, but with the added advantage that each roller revolves in a planetary motion, thus further reducing friction. **(PM 998.)**

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Among the millions* of skilled workers who read the DAILY HERALD every day you will almost certainly find the replacement you are looking for. And naturally the easiest, most economical way of offering him the job is to advertise in the classified columns of the paper he reads—the "Herald."

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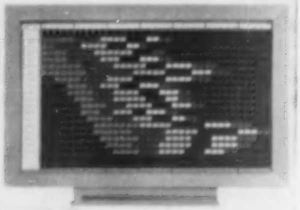
VISUAL CONTROL

THIS visual control board is designed to assist with management problems. It provides a bold visible picture, is speedy to operate, and by reason of its flexibility is capable of extremely wide application.

It consists of a wall chart employing hinged coloured flaps which can be worked into extensive systems of coding. Signal sets of seven colours are standard equipment and others may be added by special arrangement.



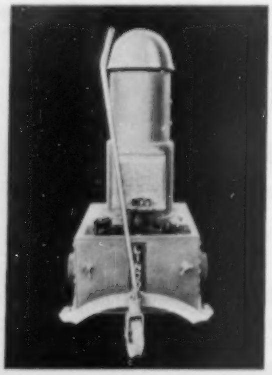
Each unit is built to contain from two to nine panels, each five squares wide by 20 squares deep. These panels are easily re-positioned to meet sudden changes in planning and to provide a constant forward picture, say the manufacturers. Security covers may be fitted if required.

Provision is made for both horizontal and vertical indexing. In many applications the use of a job number system allows pre-printed index sheets to be used in the index panels, and blocks of current job numbers to be placed in the appropriate heading panels.

The manufacturers recommend the use of the charts in job progressing, machine loading, production control, contract planning, order progress, vehicle movements, batch and flow production, and for many other applications. **(PM/999.)**

PORTABLE ARC WELDER

A LARGE number of welding applications come within the range of this arc welder, which the manufacturers claim will weld practically all metals and alloys and do hard-facing work. It can be set for any type of arc or any arc intensity by the means of dual continuous control.



The machine has a single-operator, variable-voltage type generator with laminated pole pieces, and can be used with either bare or shield-arc type electrodes. It has a 7.5 h.p. squirrel cage induction motor which is ample for heavy overloads. Connections are available for either 220 or 440 volts, and the machine is also supplied for 550 volts or special voltages.

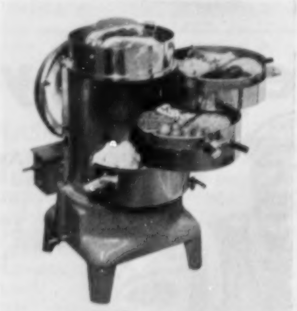
The welder is made in arc-welded steel. The base is drilled at the four corners for bolting down or for attaching a three-wheeled running gear, which is an optional extra. It occupies less than four square feet of floor space. **(PM/1000.)**

PLASTIC CARD HOLDER

A JOB-CARD holder which is oil, moisture, and dust proof, made from a transparent plastic material specially selected for hard wear, is now available. The holder is hygienic and washable, and comes in four sizes. But special sizes can be made for quantity orders. The prices range from 10d. upwards, according to the measurements. **(PM/1001.)**

Canteen

THREE-TIER COOKER



THE latest model of this three-tier steam cooker has a capacity of approximately 3½ cubic feet and there is space in the top tier for cooking large joints. The three rotating pans are easily swung in and out of the heat zone.

The cooker is supplied in three types: gas, electric, and steam coil. A strong cast-iron base supports a superstructure of robust machined silicon aluminium. The automatic water feed is arranged to minimise the leakage of grease and residues from the boiling tank to the balancing tank. Both tanks are emptied by means of one tap.

It stands 4 ft. 4½ in. high, requires a depth of 2 ft. 6½ in., and with the tiers closed is 2 ft. 9¼ in. wide. The weight, without equipment, is 250 lb.

The manufacturers claim that one cooker provides the cooking facilities of a 6 ft. range top. **(PM/1002.)**

Cleaning

HEAVY-DUTY CLEANER

AN industrial portable vacuum cleaner has been designed especially for use in the textile trade. It is built on exactly the same lines of an earlier model, but incorporates a more powerful motor. At the same time, however, the size of the machine has been kept down for moving between the rows of looms.

The manufacturers claim that it is especially suitable where continuous cleaning is required and where conditions may be arduous. It can be provided with equipment which makes it extremely versatile and can be used for all types of surface-cleaning, handling light bulky material, and where the filter bag is not likely to become clogged.

This model is powered by a 3 h.p. electric motor, and has an exhauster operating at 7,800 r.p.m. **(PM/1003.)**

DUST-COLLECTING MOP

NOVEL feature of this industrial mop is that it has a specially impregnated head which, the manufacturers claim, collects all dust. It is fitted to a lightweight frame and has a comfortable grip. It is designed for cleaning floors, walls, ceilings, and furniture, in any building which must be swept daily. **(PM/1004.)**

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Management Bookshelf . . .

THE HUMAN APPROACH

Personnel Management. A Human Relations Approach. *By William H. Knowles, American Book Company.* 482 *pp.*

PROFOUND changes have taken place in American society during the past several decades. At the same time a revolution has occurred in American industry, says the author.

The introduction of semi-automatic machinery and assembly-line techniques has reduced the importance of the skilled craftsman. On the other hand the unionisation of the mass-production industries and the passage of legislation favourable to labour have increased respect for the common working man. Finally, the old-fashioned captain of industry has given way to a team of management experts, not the least important member being the personnel manager.

In carrying out the functions of his department, the personnel manager must have the assistance of experts in scientific management, industrial psychology, industrial sociology, medicine and statistics. But the efforts of these experts, the author asserts, need to be directed by a sound philosophy of employer-employee relations. A major purpose of this book is to provide such a philosophy.

The author believes that society has reached the stage where industrial autocracy is no longer compatible with political democracy, that long-range efficiency is possible only in a healthy social structure, and that it is entirely possible to gain the willing co-operation of workers organised in non-revolutionary unions.

The book opens with a comprehensive review of the historical background of management-labour relations, and spotlights some significant changes in the concept of labour. Five chapters are devoted to approaches to personnel management. They deal with the contribution of industrial engineering and industrial psychology, studies in industrial sociology, and the final chapter in this section defines the human-relations approach to the subject.

The theory and philosophy of personnel management are dealt with at length, and there are separate sections devoted to union-management relations, wage administration, and the relative role of the U.S. Government.

LESSONS OF WAR

Morale In War and Work. *T. T. Paterson. Max Parrish & Co. Ltd, price* 18*s.*

DURING the war Dr. Paterson, who is now Senior Lecturer in Industrial Relations at Glasgow University, was posted to a fighter station as controller in the Operations Room. The station commander ordered him to find out why there was an abnormally high flying accident rate, and then to cure it. In this book he tells how he carried out this assignment in off-duty hours, what lessons he learnt from it, and how he is applying those lessons to his present work in industry. Most of the accidents were due to carelessness. He had to put right, not mechanical defects, but whatever had gone wrong in the minds of men, and in the relationships of groups of men.

It is a fascinating story, not least for its picture of a scientist turning his trained mind, skilled methodology and intuitive "feeling" for men on to an unfamiliar problem. The essence of this problem was threefold. How do communities of men think and act? Who are the natural leaders of these communities and how do they become leaders? How can these leaders themselves be led to influence their groups in the desired way?

A tremendous improvement both of morale and of accident figures (strikingly shown on charts and tables) proved the rightness of his reasoning and his sometimes rather unorthodox methods. This clear, and immensely readable, statement of his theories is of the highest importance to industrialists, serving officers and all whose work involves "getting the best out of men".

THE AMERICAN WAY

Reporting Back—*a report of the groups of young managers attending the Universities of Cincinnati and Syracuse under the auspices of the Mutual Security Agency*, 1951-1953. *Management Publications Ltd.*

DURING the academic years 1951-2 and 1952-3 funds were provided by the U.S. Government through the Mutual Security Agency for a study to be made of "the philosophy, principles and techniques of American business management" by a number of young managers from Britain. In each of the two years, two groups travelled to the United States, attending the Universities of Cincinnati and Syracuse, respectively. Each course lasted nine months.

In this book they publish the outstanding impressions of the period that they spent in the U.S.; a summary of experience based not only upon courses of instruction but upon an overall total of 452 visits made to companies, trades unions, business associations and Government departments.

The greater part of the book is devoted to chapters on production, distribution, finance, and labour, in which the managers discuss the techniques and methods that they saw in operation. What emerges most clearly is the strong impression left in the minds of managers of this level by the general attitude towards business in America—an attitude more important and more fundamental than the specific technique in which it is manifested.

The report draws attention to the high social prestige attached to business in the United States, to the all-pervading competitive spirit and the ready adaptability to new methods. Stress is laid in particular on the extent to which production, prices, and employment are governed by the volume of sales, with a resultant cost-consciousness in every department and at all levels.

A final chapter indicates the scope of American education and training for management, with its strong emphasis on the case-study method and a close co-operation between the universities and industry.

COST-CUTTING IDEAS

Tested Approaches To Cutting Production Costs. *American Management Association.*

WITHOUT management's constant vigilance, production costs, both direct and indirect, can become a threat to competitive survival. Regular selective pruning is needed to weed out unjustifiable expense. But executives must also be aware of the occasional increase in costs which can produce long-term savings.

Drawing from material presented at a recent American Management Association special manufacturing conference, this new Special Report shows executives how to determine whether and where costs are out of line. Specialists pinpoint specific areas in which efforts at cost-cutting should be most rewarding.

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Summary of Official Publications

READERS' GUIDE TO ACTS, STATUTORY ORDERS, NEW RULINGS AND AWARDS CONCERNING INDUSTRY AND PERSONNEL

GENERAL

Careers for Men and Women (Series No. 43). Veterinary Science. Published by the Ministry of Labour and National Service. *H.M.S.O.* 6d. Detailed description of qualifications, training and professional opportunities.

Choice of Careers (New Series No. 5). Bespoke Tailoring (revised 1955 edition). Published by the Ministry of Labour and National Service. *H.M.S.O.* 1s. 3d.

Manual of Firemanship. Published by the Home Office. *H.M.S.O.* 4s. Survey of the science of firefighting. Part III. Water supplies.

Ministry of Labour Gazette. Vol. LXIII, No. 7, July, 1955. *H.M.S.O.* 1s. 6d.

Report of the Electricity Sub-Committee of the Joint Consultative Committee. Published by the Ministry of Labour and National Service. *H.M.S.O.* 4d.

Report of H.M. Inspector of Mines, Scottish Division, 1954. Published by the Ministry of Fuel and Power. *H.M.S.O.* 2s.

Safety Pamphlet No. 5. Published by the Ministry of Labour and National Service. *H.M.S.O.* 5s. Fencing and Safety Precautions for Cotton Spinning and Weaving Machinery. Part 2. Spinning, Doubling and Winding Machinery.

Psychological Tests for Accident Proneness and Industrial Proficiency. Published by the Medical Research Council. A summary of Reports Nos. 38, 55, 68, 74 and 84 of the Industrial Health Research Board by E. G. Chambers, M.A. *H.M.S.O.* 2s. Describes tests carried out on over 4,000 subjects in 15 years; interrelations of the tests; the concept of accident proneness; the nature of accident proneness; the relationship between accident incidence and other variables; the relationship between test scores and accident incidence; the relationship between test scores and industrial proficiency; and the effect on accident incidence of selection for proficiency.

STATUTORY INSTRUMENTS

No. 981. The Milk Distributive Wages Council (England and Wales) Wages Regulation (Amendment) Order, 1955. Dated July 4, 1955, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945 (a). *H.M.S.O.* 3d. Amends the previous Order (Order M.D. 78) by increasing the statutory minimum remuneration fixed by that Order.

No. 1041. Pensions. The Local Government Superannuation (Benefits) Amendment Regulations, 1955. Dated July 13, 1955, made by the Minister of Housing and Local Government. *H.M.S.O.* 4d. Amends the previous Regulations in the main to remedy certain defects of drafting.

No. 1062. The Coal Industry Nationalisation (Variation of Trusts) (Miners' Welfare National Students Exhibition Fund) Order, 1955. Dated July 18, 1955, made by the Minister of Fuel and Power under Section 41 of the Coal Industry Nationalisation Act, 1946 (a) as amended by Section 11 of the Miners' Welfare Act, 1952 (b). *H.M.S.O.* 3d. By this Order trusts declared in respect of the Miners' Welfare National Students Exhibitions Fund are varied. The principal variation extends the benefits to a wider class of beneficiaries.

No. 1089. The Retail Drapery, Outfitting and Footwear Trades Wages Council (Great Britain) Wages Regulation (Amendment) (No. 2) Order, 1955. Made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945 (a). Dated July 21, 1955. *H.M.S.O.* 3d. Amends the customary holiday contained in the Wages Regulation Order for these trades (Order R.D.O. 16 of 1953) as amended by subsequent Orders.

No. 1162. The National Insurance (Industrial Injuries) (Colliery Workers Supplementary Scheme) Amendment (No. 2), Order, 1955. Dated July 27, 1955, made by the Minister of Pensions and National Insurance under Subsection (8) of Section 83 of the National Insurance (Industrial Injuries) Act, 1946 (c). *H.M.S.O.* 3d. Varies and amends the provisions of the National Insurance (Industrial Injuries) Colliery Workers Supplementary Scheme relating to the rates of supplementary injury benefit, disablement pension and widow's pension and to the amount of supplementary disablement gratuity under the Scheme. It also provides for the payment of supplementary gratuities to certain widows entitled to supplementary widow's pension where their pensions terminate on re-marriage.

No. 1206. The Coal Industry (Workmen's Compensation Liabilities) (Mutual Indemnity Companies) Order, 1955. Dated July 29, 1955, operative from August 15, 1955, made by Order in Council. *H.M.S.O.* 6d. Transfers to the National Coal Board certain specified workmen's compensation liabilities previously the responsibility of mutual indemnity associations.

No. 1247. The Ostrich and Fancy Feather and Artificial Flower Wages Council (Great Britain) Wages Regulation Order, 1955. Dated August 5, 1955, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945 (a). *H.M.S.O.* 4d. Revokes Order O.F. (18) of 1951 and O.F. (22) of 1953 and sets out the new statutory minimum remuneration payable.

INDUSTRIAL DISPUTES TRIBUNAL AWARDS

No. 728. Tool Allowance for Plasterers Employed in the Building Industry. Claim: For a tool allowance of 2d. per day. **Award**: Claim established with effect from August 1, 1955. (30/6/55.)

No. 729. Observance of Recognised Terms and Conditions of Employment by a Firm in the Home Grown Timber Industry at Alnwick, Northumberland. Claim: That the employer should observe the terms and conditions of employment as laid down by the National Joint Industrial Council for the Home Grown Timber Industry, with particular reference to Clause 13 dealing with annual holidays. **Award**: Claim established. (1/7/55.)

No. 730. Observance by the Corporation of the Borough of Stafford of Recognised Terms and Conditions of Employment in respect of the Waterworks Engineer. Claim: That the Corporation should pay their Water Engineer a salary of £1,150 per annum rising to a maximum of £1,322 10s. in accordance with an award of a sub-committee of the Joint Committee for Water Engineers' Salaries. **Award**: Claim established with effect from October 1, 1954. (4/7/55.)

No. 731. Break Period for Workers Employed in the Hosiery Industry. Claim: That during each session of more than six hours working there shall be a compulsory break of at least thirty minutes per session during which the employee concerned shall stop work. Where for any reason whatsoever in any factory, or part of a factory, the break period is staggered, no operative shall be allowed to work another operative's job, or part of a job, in conjunction with his own during the period in which a break is being taken. **Award**: Claim not established. (6/7/55.)

No. 732. Remuneration of the Borough Education Officer, Swindon. Claim: For the adoption by the County Council of a specified salary scale in respect of the Borough Education Officer, Swindon. **Award**: That the salary scale shall be £1,675 per annum rising by annual increments of £52 10s. to £1,937 10s. per annum. The officer at present in the post shall be placed upon a point in the new scale provided under this award corresponding with the point reached in the present salary scale. Effective from July 1, 1955. (8/7/55.)

No. 733. Holiday Pay of Certain Workers Employed in the Lace Furnishing Manufacturing Industry in Nottingham and Scotland. Claim: That holiday payments for qualified weaver/twisthands be related to the minimum fall-back wage. **Award**: Claim not established. (13/7/55.)

No. 734. Contract Prices for Work Done by Coopers Employed by a Firm of Coopers at Hull. Claim: Dispute arising out of a difference between the said parties concerning a reduction in the existing contract prices for work done by coopers. **Award**: That having regard to the terms of the arrangement made between the company and the Society of Coopers on November 10, 1954, the company were not justified in reducing unilaterally the contract price for the repair of casks at their Hull establishment. (19/7/55.)

No. 735. Claim for Subsistence Allowance in respect of a Worker formerly in the Service of the Lancaster and Kendal Hospital Management Committee. Claim: That Mr. J. Blackburn should be paid subsistence allowance in accordance with the Agreement of the Ancillary Staffs Council of the Whitley Councils for the Health Services (Great Britain) operative from August 1, 1951, and as subsequently amended. **Award**: Claim not established. (21/7/55.)

No. 736. Rates of Wages of Certain Workers Employed by the Aberdeen Harbour Commissioners. Claim: For an increase in wages of 4d. per hour or 14s. 8d. per week of 44 hours. **Award**: Claim not established. (22/7/55.)

No. 737. Claim for Payment of Accrued Holiday Pay to a Worker formerly Employed by an Electrical Firm at their Factory at High Wycombe. Claim: For payment of accrued holiday pay in accordance with the terms of a specified agreement in the engineering industry. **Award**: Claim established. (26/7/55.)

INDUSTRIAL COURT AWARDS

No. 2573. Pilots Employed by Independent Operator Members of the National Joint Council for Civil Air Transport—Terms and Conditions of Service—Claim for Parity with Pilots Employed by the Airways Corporation. Reference: To determine a "difference" existing between the parties following notice of termination by the employees of the existing Agreement for Service between the Independent Operators who are in membership of the National Joint Council for Civil Air Transport and the British Air Line Pilots Association and a claim from the Employees for the application of the rates of pay and conditions of service applicable to Pilots in the employ of the Airways Corporations to Pilots in the employment of the Indepdendent Operators in membership of the National Joint Council for Civil Air Transport. **Award**: Claim not established. (12/7/55.)

No. 2574. Building Industry. General Foremen, Grades I and II, employed by the Corporation of the City of Glasgow. Reference: To determine a claim by the National Federation of Building Trades Operatives for reconsideration of payments to general foremen, in the employment of the Corporation, whilst engaged on contracts where incentive schemes apply to the main body of workers. **Award**: Upon general grounds a case has been established for some increase in the basic rate of the said Grade I and Grade II general foremen and that the amount of such increase should be the subject of consideration between the Parties to the reference. (12/7/55.)

No. 2575. Plastics Industry. Welwyn Plastics Ltd.—Process Workers—Rates of Pay—Claim for Increase. Reference: That all existing rates of adult male manual workers, other than maintenance staff, be increased by 3d. per hour. **Award**: From the beginning of first full pay period following date hereof, the hourly rate of each full-time adult male worker covered by the present reference shall be increased by 2d., against which shall be set off the amount of common increases, if any, which have been uniformly applied while the present claim has been under consideration. (28/7/55.)

CIVIL SERVICE ARBITRATION TRIBUNAL AWARDS

No. 287. General Service and Linked Departmental Grades. Claim: For further instalment of pay supplement with retrospective effect.

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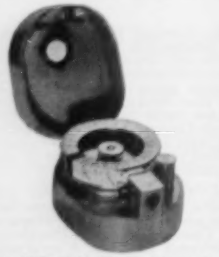

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Award: That the following additional pay supplements shall be paid as from July 1, 1955, to the staff concerned: juveniles under 18, £13 per annum; over 18 and under 21, £18 per annum; salary ranges from £350 to £500, £21 per annum; from £500 to £700, £30 per annum; between £700 and £900, £40 per annum; and between £900 and £1,500, £60 per annum. (4/8/55.)

No. 288. Manipulative Grades Employed In The Post Office. Claim: For increase in pay with retrospective effect. **Award**: Scales of pay for nine specified grades of permanent male workers to be increased as follows: under 18's, 5s. per week; between 18 and 21, 7s. per week; adults with less than 145s. per week, 7s. per week; with between 145s. and 200s. per week, 8s. 6d. per week; over 200s. per week, 10s. 6d. per week. To take effect from July 1, 1955. (4/8/55.)

No. 289. Locally-Entered Foremen of Trades Employed in Malta. Claim: That the salary scale (exclusive of local cost of living bonus) of locally-entered foremen of trades employed in Malta shall be £365 × £15—£475. **Award**: That the salary scale shall be £350 × £15—£460 to have effect from January 1, 1955; that the "corresponding points" principle shall be applied in the assimilation to the new scale of officers in post. (6/8/55.)

September Diary For Management

BURTON MANOR

12-23 "A Survey of the Docks Industry." A course for supervisory grades in the docks and shipping industries organised in co-operation with the National Association of Port Employees through whom all bookings should be made.

12-16 "Effective Speaking." Course directed by Miss Freda Dowie.

18-23 Course on "Work Study."

COLLEGE OF PRODUCTION TECHNOLOGY (ASHFORD, KENT)

5-9 Five-day Course on "Work Study."

5-9 Five-day Course on "Materials Handling."

5-25 Nov. Twelve-week Course on "Work Study."

12-17 Five-day Course on "Method Study."

12-23 Two-week Course on "Materials Handling."

19-28 Oct. Six-week Course on "Work Study and Materials Handling."

26-30 Five-day Course on "Work Study."

26-30 Five-day Course on "Materials Handling."

INDUSTRIAL CATERING ASSOCIATION

13 **Birmingham** (*Messrs. Mitchells & Butlers Ltd.*, Social Club, Portland Road, 17). "Wines and Their Courses," by Mr. A. G. Liggins.

INDUSTRIAL WELFARE SOCIETY

1-5 **Keble College, Oxford.** Apprentices Residential Course (1).

4-9 **Roffey Park.** Training Officers Joint Course.

6-10 **Keble College, Oxford.** Apprentices Residential Course (2).

22 **Robert Hyde House.** Meeting of the Industrial Editors Welfare Group.

26 **Robert Hyde House.** A Course of Lectures and Discussion for Foremen (6-7.30 p.m.).

26 **The College of Distributive Trades.** Retail Discussion Groups (4-6 p.m.).

27 **Robert Hyde House.** Afternoon Advisory Meetings.

28 **Robert Hyde House.** Afternoon Advisory Meetings.

29 **Robert Hyde House.** Course for Executives. "Speaking Successfully in Business and in Public" (4.30-6 p.m.).

INSTITUTE OF INDUSTRIAL SUPERVISORS

2-4 **Missenden Abbey, Bucks.** "Work Study for Supervisory Management."

16-18 **Ashorne Hill.** "Industrial Relations, Industrial Law—What the Supervisor Should Know."

30-2 Oct. **Dillington House, Ilminster.** "The Practice of Supervisory Management."

INSTITUTE OF PERSONNEL MANAGEMENT

4-9 **Roffey Park.** 5 Day Joint Training Officers' Course.

INSTITUTION OF PRODUCTION ENGINEERS

14 **London Branch.** Visit to *Carreras Ltd.*, Arcadia Works, N.W.1.

19 **Newcastle upon Tyne.** An address by the section chairman, F. Baker, M.I.Prod.E.

NATIONAL INSTITUTE OF INDUSTRIAL PSYCHOLOGY

4-9 **Roffey Park.** Joint Course for Training Officers.

20-22 **London.** Three-day Course for Supervisors.

26-30 **London.** Course in "Selection Methods, Part III."

SOCIETY OF INDUSTRIAL CIVIL DEFENCE OFFICERS

20-23 **Southsea.** Third Annual Convention.

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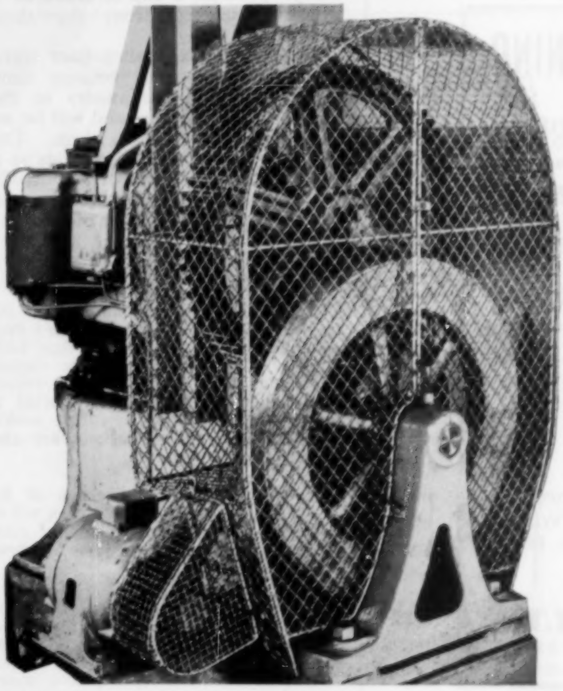

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AP266/121

CANTEEN ADVICE BUREAU

How to Make the Most of Your Meat Order

Can you suggest how we can effectively reduce our meat bill without making any outstanding changes in the menu? We enclose copies of the canteen menu for the past four weeks. (S. L. B., Doncaster.)

ECONOMY in regard to meat can be effected by judicious ordering and by care in preparation and cooking. A knowledge of the grades of meat and the various cuts is essential if money is to be spent wisely. It is said of butchers that they live on their losses, but it would be possibly more correct to say that they live on the losses of those customers whose knowledge of meat technology is very slight. Meat should always be ordered for the purpose for which it is most suitable; haphazard ordering of something for roasting or something for stewing proclaims inefficiency. Name the cut that you want when ordering, and this will convey to the butcher that you know something about meat.

The following table shows how meat should be ordered having regard to the use for which it is intended:

BEEF

Joint.	*Uses.*	*Order.*
Fore-ribs.	Roast.	Boneless.
Topside.	Roast. Braise..	Boneless.
Thick Flank.	Roast. Braise.	Boneless.
Silverside.	Braise. Pickle, Stewing Steak.	Boneless.
Top Ribs.	Braise. Pies. Hot Pot.	Bone in.
Back Ribs.	Braise. Pies. Stews.	Bone in.
Brisket.	Braise. Pressed Beef.	Bone in.
Shoulder Piece.	Braise. Stews. Puddings.	Boneless.
Flat Ribs.	Stews. Hot Pot.	Bone in.
Thin Flank.	Stews. Pies. Puddings.	Bone in.
Fore-Quarter Flank.	Stews. Pressed Beef.	Boneless.
Clod & Sticking.	Stews. Pies. Puddings.	Boneless.
Leg of Beef.	Stews. Hot Pot.	Boneless.

MUTTON

Joint.	*Uses.*	*Order.*
Scrag.	Braise. Stews.	Bone in.
Breast.	Braise. Roast. Stews.	Bone in.
Whole Neck.	Braise. Roast. Stews.	Bone in.
Middle Neck.	Braise. Roast. Stews.	Bone in.

Joints for roasting should be boned and rolled before cooking, since this helps cutting on the slicing machine. However adept the canteen cook may be at carving it is unlikely that he can compete with a slicing machine. Boning and rolling also gives an opportunity to add the appropriate stuffing and thereby increase the size of portion on the plate.

So far as the cooking of the meat is concerned it is worth while paying attention to the temperature and the time of cooking. Too high a temperature or too long a period of cooking will greatly increase the amount of shrinkage. A few simple experiments of weighing similar joints before and after cooking at different temperatures will soon prove how wasteful it can be to use too high a temperature.

A REVOLUTION IN CLEANING

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UNIDA INDUSTRIAL MOP

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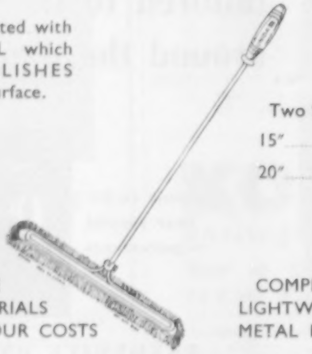
Impregnated with UNISOL which also POLISHES the surface.



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LONDON, W.5

WHAT AUTOMATION MEANS

(*Continued from page 145*)

quick in action when action is required. They must be highly responsible men.

Automation will have other effects. We shall, for instance, have to reconsider the method of payment of the men in charge: those who control and those who service the machines. Automation means machines that work at pre-set speeds and feeds, set to give the longest life to the cutting tools. These speeds and feeds will be outside the control of the operators, and the loading of the machines will be automatic. Hence piece-work as we now know it will not be applicable. Incentive payments, if made, will be based on the team's ability to keep the machines running regularly and continuously. Those in control of the machines will without doubt be shift workers, so again we meet the analogy of the power station engineer, the highly responsible near-executive.

The American trade unions are now suggesting a 30-hour week for the metal-working industries. This is a bargaining counter and is probably a long way off; but if it comes it would suggest four 5-hour shifts *per diem*, with an hour between each shift for tool-changing and no breaks for meals except, perhaps, a cup of coffee or a "coke" snatched from the shop "automat."

Time study as a shop-floor technique will disappear because time study will be a preliminary to the design of the machines and will be, so to speak, built into them. The method of calculating overheads as a percentage on the cost of labour will become a complete anachronism and must disappear in favour of machine ratings. (*To be continued.*)

In Brief . . .

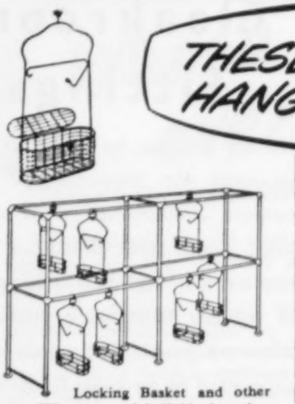
NEARLY 1,000 employees at the Sheffield factory of *Batchelors Peas Ltd.* are to contribute more than £400 a year to the British Empire Cancer Research Campaign. They have volunteered to have the money deducted in pennies or twopences from their weekly wage packets. The company are also making a contribution.

* * *

The 1956 annual conference of the International Labour Organisation will be asked to discuss the problem of rural workers migrating to the cities in search of employment.

* * *

Panorama Equipment Ltd., manufacturers of eye, face and head protective equipment, have moved from Old Kent Road, London, to Panorama House, 29/36, Seymour Mews, Wigmore Street.



Locking Basket and other types of Hanger to suit individual requirements, fully meeting the New Factory Act.

THESE AIR-DRY "SIEBER" HANGERS ARE A TREAT

"At last I can change into dry, uncreased clothing when I go home! It's plain common sense to hang rain-soaked 'togs' on a 'SIEBER' Hanger instead of bundling them into an unventilated, smelly locker. It saved me from many colds and my clothes are fresh and wear better. The boss, too, must like these 'SIEBER' Hangers because they reduce absenteeism and the space he saves is bound to repay the little money they cost. Repair costs? Not on your life, because this Hanger Equipment is made to last for good and all."

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Installed in Factories, Offices, Public Undertakings, Schools, Hospitals, etc.
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A Suggestion to personnel manageresses **for furthering the comfort and well-being of female workers**

Personnel Manageresses will know that the difficult days for female workers can constitute an industrial problem. Comfort is best maintained at these times with either Mene or Menex Sanitary Protection which for over fifty years has been the choice and trust of womanhood. Reliable, highly absorbent, of downy softness ... a protective back . . . Mene and Menex possess the qualities necessary for peace of mind and ease of body. They have loop ends for snug adjustment. Write today for a special quotation for a bulk order. You can have confidence in recommending . . .

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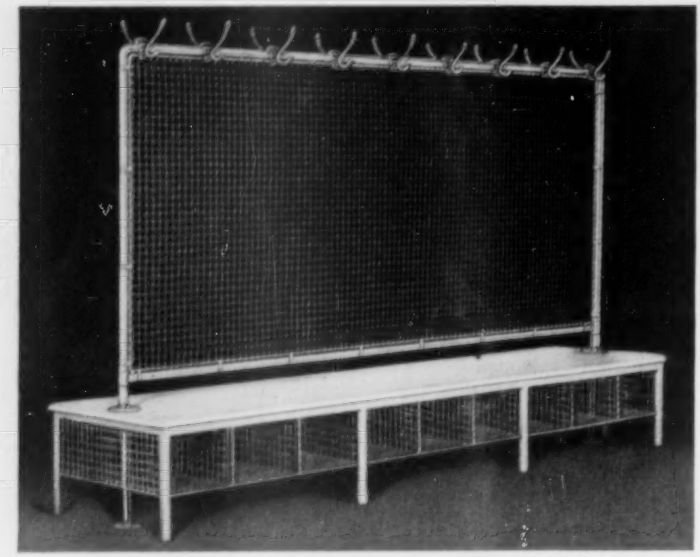

Cloakroom Fittings

Harvey Fittings have been designed to meet the requirements of all modern cloakrooms. The double-sided island stack illustrated here is approx. 5′ 6″ high and is constructed of tubular framework enclosing a wirework panel. The wooden seat is supported by an angle frame and tee bar legs, incorporating boot and shoe compartments approx. 12″ wide × 9″ high × 12″ front to back.

Harvey

Fig. No. 2616: Also available single-sided for wall positions or base unit alone can be supplied together with hat and coat hooks for wall fixing. For complete range, please ask for List No. PMT 879.

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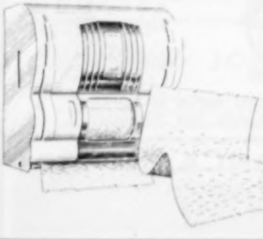

We shall be pleased to arrange a demonstration —without obligation, of course.

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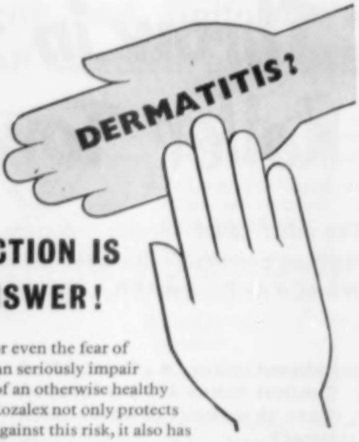
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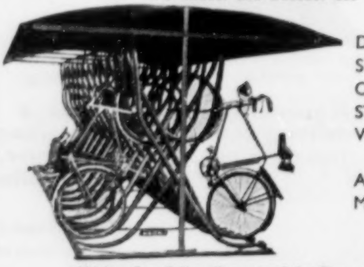

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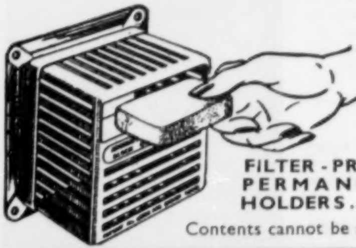

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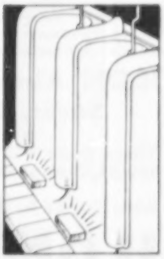

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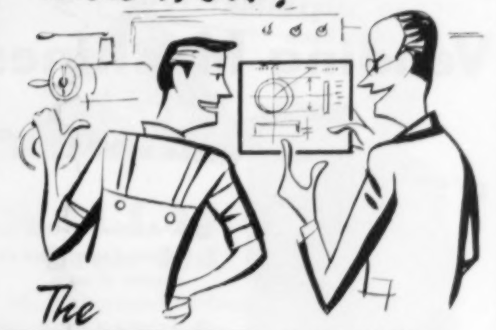

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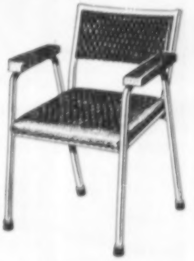

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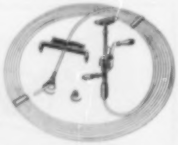

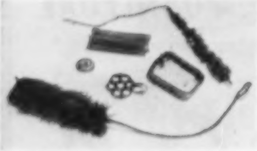

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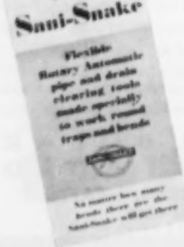
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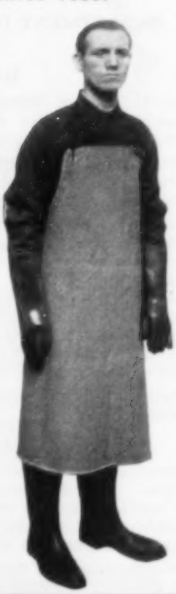

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THE engagement of persons answering advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

SITUATIONS VACANT

INDUSTRY AND THE UNIVERSITIES

FORD MOTOR COMPANY LIMITED, DAGENHAM, seeks still further to develop the opportunities it offers to the University graduate.

We, therefore, invite applications from a man with appropriate background and experience between 35 and 50 who has the ability to expand and consolidate the Company's relations with Universities, and has a real interest in helping the newly-engaged graduate to adapt himself to Industry. Previous experience in industry and a knowledge of modern selection methods are desirable.

The position will be well rewarded and will appeal to those who have been actively interested in advising undergraduates within the Universities.

Applications should be made in confidence to Salaried Personnel Department, reference OUC within two weeks of the appearance of this advertisement.

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THERE ARE 2,000 factory supervisors in this Company and further expansion is planned. **FORD MOTOR COMPANY LIMITED, DAGENHAM,** invite applications from men between 35 and 50 fully qualified in conducting training by the discussion group method for factory supervisors.

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Applications should be made in confidence to the Salaried Personnel Department reference OTI within two weeks of the appearance of this advertisement.

SITUATIONS VACANT

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ASSISTANT TO PERSONNEL MANAGER REQUIRED by large engineering Company in the Midlands. Preference will be given to applicant who has had actual experience in dealing with labour relations, conversant with agreements affecting Engineering Industry, and the procedure for dealing with same. Apply in the first instance giving full details of previous experience, age and salary required, etc., to Personnel Manager, Box No. 112, "Personnel Management", 180, Fleet Street, E.C.4.

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Bringing a works party to Blackpool? Then please write for specimen menus to The Manager, Carlton & Central Cafés, Foxhall Road, Blackpool. Seating for 350. Open Sundays. Central to all amusements. Special terms for mid-week parties.

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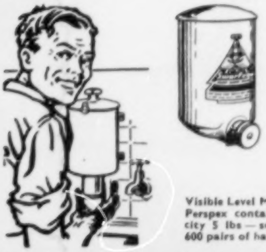
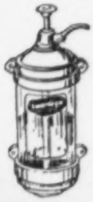


Minor Model (left) 2½ lbs capacity — sufficient SWARFEGA to clean 300 pairs of hands.



Visible Level Model (right) Perspex container. Capacity 5 lbs — sufficient for 600 pairs of hands.

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TO DEB CHEMICAL PROPRIETARIES Ltd., (P.M.)
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